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WATER SUPPLY OUTLOOK FOR WASHINGTON

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AT URBANA-CHAMPAIGN

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
FEB. 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

USDA-SCS-PORTLAND, OREG. 1979

WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

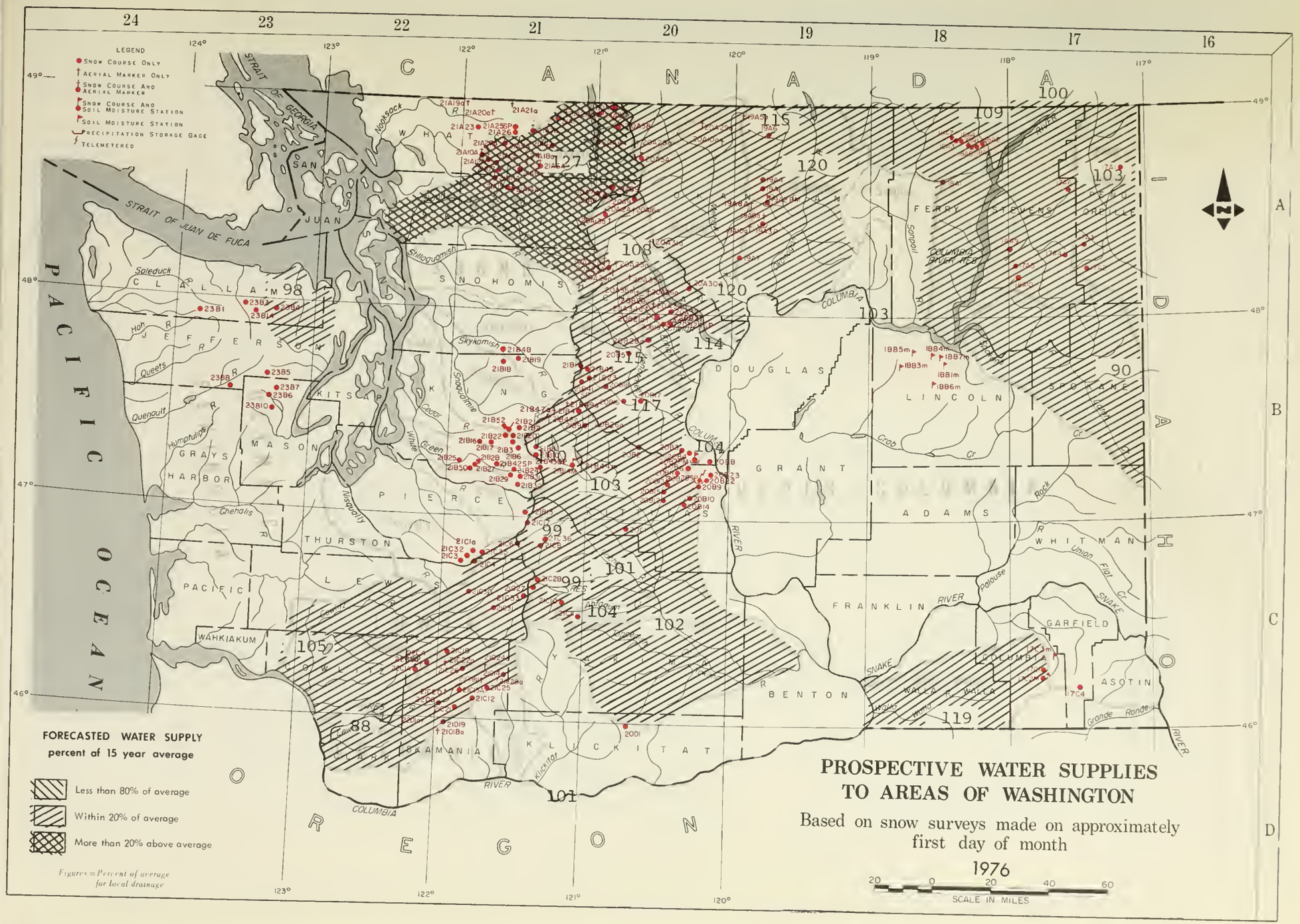
JOHN A. BIGGS

DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201


LEGEND
Snow Course Only
Aerial Marker Only
Snow Course And Aerial Marker
Snow Course And Soil Moisture Station
Soil Moisture Station
Precipitation Storage Gage
Telemetered
FORECASTED WATER SUPPLY
percent of 15 year average
Less than 80% of average
Within 20% of average
More than 20% above average
Figures = Percent of average for local drainage
PROSPECTIVE WATER SUPPLIES TO AREAS OF WASHINGTON
Based on snow surveys made on approximately first day of month
1976
SCALE IN MILES
CANADA
OREGON
PACIFIC OCEAN
STRAIT OF JUAN DE FUCA
STRAIT OF GEORGIA
SAN JUAN ISLANDS
WHATCOM
SKAGIT
SNOHOMISH
KING
KITSAP
JEFFERSON
CLALLAM
MASON
GRAYS HARBOR
PIERCE
THURSTON
LEWIS
WAHKIAKUM
SKAMANIA
CLARK
KLICKITAT
YAKIMA
BENTON
FRANKLIN
ADAMS
GRANT
DOUGLAS
LINCOLN
SPOKANE
WHITMAN
GARFIELD
ASOTIN
FERRY
STEVENS
PEND OREILLE
Nooksack R.
Stillaguamish R.
Skykomish R.
Snoqualmie R.
Cedar R.
Green R.
White R.
Puyallup R.
Soleduck R.
Hoh R.
Queets R.
Quenault R.
Humptulips R.
Chehalis R.
Cowlitz R.
Lewis R.
Kalama R.
Klickitat R.
Wind R.
Little White Salmon R.
White Salmon R.
Methow R.
Okanogan R.
Similkameen R.
Sanpoil R.
Columbia River Res.
Kettle R.
Colville R.
Pend Oreille R.
Spokane R.
Crab Cr.
Rock Cr.
Union Flat Cr.
Palouse R.
Snake R.
Walla Walla R.
Grande Ronde R.
Kicktat R.
Columbia R.
Yakima R.
Franklin River
Columbia River
Snake River
Grande Ronde River
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Chehalis River
Cowlitz River
Lewis River
Kalama River
Klickitat River
Yakima River

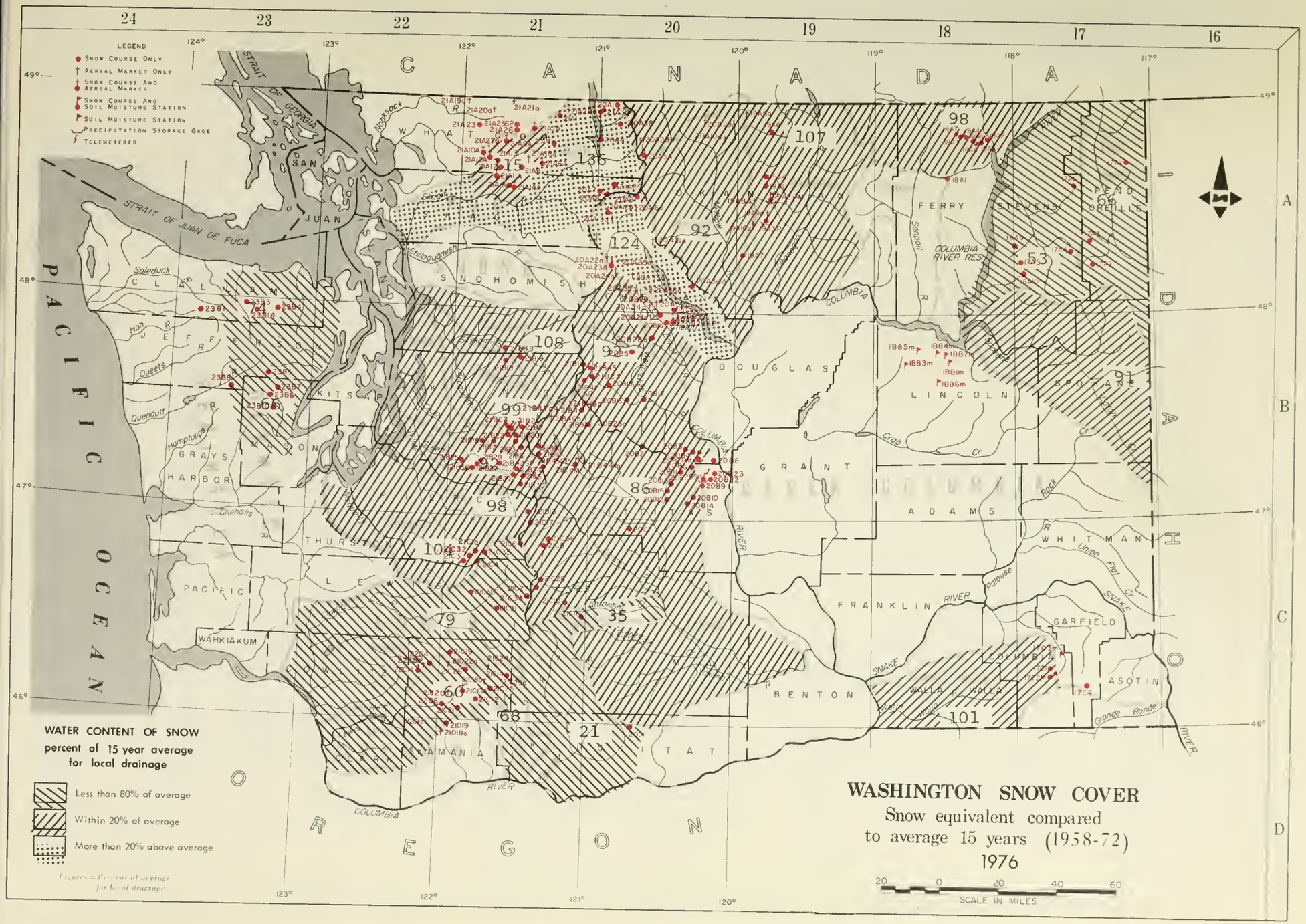
INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
UPPER COLUMBIA DRAINAGE					
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	S250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	S	3BN	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	1BA5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17AS	26	31N	38E	4990
Togo	18A10	6	29N	3BE	3370
Sanpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5350
Okanogan River					
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845
Methow River					
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650
Chelan Lake Basin					
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A2Sa	3	31N	16E	3540
Little Meadows	20A24a	B	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Entiat River					
Blue Creek G.S.	20828a	19	28N	18F	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	1"	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20B21a	10	2BN	18E	5300
Wenatchee River					
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	2085	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B1B	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21845	12	26N	19E	3700
Wenatchee River (continued)					
Trough #2	20B2SSP	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20BB	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	18B1m	32	27N	34E	2440
Jack Woods	1BB3m	28	27N	31E	2750
Krause	18B4m	21	27N	33E	2420
Sheffels	18B5m	17	27N	32E	2378
Sherman	18B7m	24	27N	33E	2440
Wheatridge	18B6m	24	25N	32E	2290
Yokima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Oomery Flat	21B44m	1S	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	293C
Joe Lake	21846a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B1S	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500
LOWER COLUMBIA DRAINAGE					
Asotin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Klickitat River					
Satus Pass	2001	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	BE	4800
Bob's Trail	21C21	25	BN	7E	2200
Calamity Ridge	2201a	8	5N	5E	2500
Council Pass	21C18a	24	9N	9E	4200
Lewis River (continued)					
Divide Meadow	21C29a	21	9N	10E	560C
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3B00
Marble Mountain	22C5a	24	BN	5E	3200
New Muddy River	22C6	36	8N	6E	200C
Oldman Pass	21019	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21018a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250
PUGET SOUND DRAINAGE					
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	BE	2760
Paradise Park (New)	21C35	13	15N	BE	5500
Stem Glade	21C1	13	15N	8E	5050
White River					
Corral Pass	21B13	30	18N	11E	6000
Green River					
Airstrip	21B24	18	20N	11E	1800
Charley Creek	21B2S	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	21	20N	BE	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21843SP	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3B60
Twin Camp	21B30	18	19N	11E	4100
Cedar River					
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21B52	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21B48	31	27N	9E	3500
Olallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B1B	26	26N	9E	1900
Skykomish River					
Lake Elizabeth	21B19	33	26N	10E	2900
Skogit River					
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	36B0
Brown Top	21A2Ba	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20AB	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A3G	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	3BN	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A1S	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksock River					
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200
OLYMPIC PENINSULA					
Dungeness River					
Deer Park	23B4	1	28N	SW	5200
Morse Creek					
Cox Valley	23B14	31	29N	6W	4500
Elwho River					
Hurricane	23B3	36	29N	7W	4500
Skokomish River					
Black and White	23B7	17	24N	SW	4200
Black and White Lakes	23B6	16	24N	SW	4700
Four Stream	23B10	1	23N	6W	3000
Home Sweet Home	23B5	28	25N	SW	S200
Sundown Pass	23B8	25	24N	7W	3900
Soleduck River					
Deer Lake	23B1	14	28N	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7	Snow Course Only
21A7a	Aerial Marker Only
21A7A	Snow Course and Aerial Marker
21A7M	Snow Course and Soil Moisture Station
21A7m	Soil Moisture Station
21A7P	Snow Course and Precipitation Storage Gage
21A7p	Precipitation Storage Gage
21A7SP	Snow Pillow


WASHINGTON SNOW COVER
Snow equivalent compared
to average 15 years (1958-72)
1976
WATER CONTENT OF SNOW
percent of 15 year average
for local drainage
Less than 80% of average
Within 20% of average
More than 20% above average
Figures = Percent of average for local drainage
LEGEND
Snow Course Only
Aerial Marker Only
Snow Course And Aerial Marker
Snow Course And Soil Moisture Station
Soil Moisture Station
Precipitation Storage Gage
Telemetered
CANADA
PACIFIC OCEAN
OREGON
IDAHO
STRAIT OF JUAN DE FUCA
STRAIT OF GEORGIA
SAN JUAN
WHATCOM
SKAGIT
SNOHOMISH
CLALLAM
JEFFERSON
KITSAP
MASON
GRAYS HARBOR
THURSTON
PACIFIC
WAHKIAKUM
CLARK
SKAMANIA
KLICKITAT
YAKIMA
BENTON
FRANKLIN
GRANT
ADAMS
LINCOLN
SPOKANE
WHITMAN
GARFIELD
ASOTIN
COLUMBIA
WALLA WALLA
DOUGLAS
FERRY
STEVENS
PEND OREILLE
COLUMBIA RIVER RES
SCALE IN MILES

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
UPPER COLUMBIA DRAINAGE					
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	1BA3	28	39N	35E	4070
Cabin Creek	1BAB	5	3BN	36E	3170
Goat Creek	1BA4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	1BA6	5	3BN	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Baird	17A6	19	36N	42E	3215
Carlson	1BA9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	3BE	4990
Togo	18A10	6	29N	38E	3370
Sanpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5350
Okonogan River					
Clark	19ABa	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A2Ba	32	40N	18E	4300
Rusty Creek	19A3P	1B	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845
Methow River					
Billy Goat Pass	20A10a	10	3BN	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	1BE	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650
Chelan Lake Basin					
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A2Sa	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Entiat River					
Blue Creek G.S.	20B28a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	1	30N	18E	6510
Pope Ridge	20B20	22	29N	1BE	4300
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20B21a	10	28N	18E	5300
Wenatchee River					
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Wenatchee River (continued)					
Trough #2	20B2SSF	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	18B1m	32	27N	34E	2440
Jack Woods	18B3m	28	27N	31E	2750
Krause	18B4m	21	27N	33E	2420
Sheffels	18B5m	17	27N	32E	2378
Sherman	18B7m	24	27N	33E	2440
Wheatridge	18B6m	24	25N	32E	2290
Yakima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9	35	23N	14E	3200
Bumping Lake	21CB	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Oomery Flat	21B44m	15	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21BB	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
LOWER COLUMBIA DRAINAGE					
Asotin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Klickitat River					
Satus Pass	20D1	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	2201a	B	5N	5E	2500
Council Pass	21C18a	24	9N	9E	4200

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Lewis River (continued)					
Divide Meadow	21C29a	21	9N	10E	5600
Grand Meadow	21C2S	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3B00
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	2000
Oldman Pass	21D19	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	BE	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21D18a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	2B	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	BE	3250

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
PUGET SOUND DRAINAGE					
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C3S	13	15N	8E	5500
Stem Glade	21C1	13	15N	BE	5050
White River					
Corral Pass	21B13	30	1BN	11E	6000
Green River					
Airstrip	21B24	18	20N	11E	1800
Charley Creek	21B2S	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100
Cedar River					
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21B52	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21B4B	31	27N	9E	3500
Olallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B1B	26	26N	9E	1900
Skykomish River					
Lake Elizabeth	21B19	33	26N	10E	2900

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Skagit River					
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A2Ba	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A1Ba	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksack River					
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
OLYMPIC PENINSULA					
Dungeness River					
Deer Park	23B4	1	28N	5W	5200
Morse Creek					
Cox Valley	23B14	31	29N	6W	4500
Elwha River					
Hurricane	23B3	36	29N	7W	4500
Skokomish River					
Black and White	23B7	17	24N	5W	4200
Black and White Lakes	23B6	16	24N	5W	4700
Four Stream	23B10	1	23N	6W	3000
Home Sweet Home	23B5	2B	25N	5W	5200
Sundown Pass	23BB	25	24N	7W	3900
Soleduck River					
Deer Lake	23B1	14	2BN	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7 Snow Course Only
21A7w Aerial Marker Only
21A7A Snow Courses and Aerial Marker
21A7M Snow Courses and Soil Moisture Station
21A7m Soil Moisture Station
21A7P Snow Courses and Precipitation Storage Gage
21A7p Precipitation Storage Gage
21A7SP Snow Pillow

WATER SUPPLY OUTLOOK

State of Washington
February 1, 1976

It appears that adequate water will be available for all watersheds in the State of Washington during the forthcoming runoff season. The range of forecasts is from a high of 27 percent above normal in the Skagit Drainage to a low of 12 percent below normal in the Lewis River Drainage. The range of snow cover is considerably greater because in some areas only a few snow courses are measured and they, occurring at low elevations. The snow cover varies from a high of 36 percent above normal, again in the Skagit Drainage, to a low of 79 percent below normal for the Klickitat River Drainage. Subsequent winter precipitation will affect these watersheds immensely, but it is anticipated that, as previously stated, no water shortages should occur.

SNOW COVER

We have a large discrepancy in the snow pack, elevationwise, as of February 1. Excellent snowfalls occurred in late November and early December. At that time, the freezing level moved way up and rain occurred. This precipitation was very intense over a short period of time, with near records occurring at some high elevation precipitation stations. Stampede Pass received nearly sixteen inches of rainfall in a three day period. This precipitation passed through the snow pack at the higher elevations and increased the density immensely. At lower elevations, it washed the snow out of the mountains. This contributed to the damaging floods that occurred along the Cascade Range, on both sides. As it now stands, we do have good snow packs in the upper elevations, but very deficient snow cover at the low and medium low areas. The snow packs north of us, in British Columbia, are generally above normal at all elevations.

RESERVOIRS

The current storage in the major irrigation and power reservoirs in Washington is excellent for this time of year. Storage ranges from 8 percent below normal for the small irrigation reservoir, Conconully, to a high of 116 percent greater than normal for the Ross Reservoir in the Skagit Drainage. The five Yakima Reservoirs have 26 percent more water in storage, as of February 1, than normal. Franklin D. Roosevelt Reservoir has 36 percent more water than normal. As it now stands, all reservoirs will fill and spill with spring runoff.

PRECIPITATION

Rainfall during the fall was generally deficient, with above normal amounts occurring only in central Washington and on the northwestern slopes of the Cascades. Other drainage divisions, as reported by the National Weather Service, ranged from a low of 22 percent below normal for the Columbia in Canada to a 4 percent below on the southwestern slopes of the Cascades. Precipitation was above normal in the November-December period, but below normal during January. The resultant precipitation to date, for the winter period, ranges from 35 percent above normal in central Washington to 18 percent below normal in the northeastern portion of the state.

STREAMFLOW

During the month of January, all streams had well above normal outflows, as reported by the United States Geological Survey. Along the main stem of the Columbia, the flows at Birchbank were 32 percent greater than average; 39 percent above at Grand Coulee and 35 percent above at The Dalles. Tributary streams were also well above average with the Kettle flowing 41 percent above normal, the Okanogan, 34 percent; the Chelan, 58 percent and the Yakima, 65 percent above. Along the southern border of the state, the Walla Walla River had a flow 63 percent above normal and the Palouse, flowing from Idaho, 67 percent above. The outlets in southwestern Washington had a flow that was 33 percent above normal. Puget Sound Drainage watersheds indicated this continuing above normal flow with the Green having an outflow 47 percent greater than average and the Skagit 23 percent greater. Forecasts of streamflow are for near normal amounts of water, ranging from 12 percent below normal to 27 percent above. Numerical forecasts can be found on the following pages.

STREAMFLOW FORECASTS - FEBRUARY 1976

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1975 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr Average 58-72
COLUMBIA BASIN							
COLUMBIA RIVER SYSTEM							
Columbia River at Birchbank 1/	46500	100	Apr-Sept	41188	54227	34796	46410
	36750	98	Apr-July	33033	44492	27876	37548
	27000	98	Apr-June	22534	31894	20203	27549
Columbia River at Grand Coulee 1/	71200	103	Apr-Sept	66512	85139	45849	69020
	60600	104	Apr-July	55890	73671	38193	58368
	47000	102	Apr-June	41354	57033	29886	46049
Columbia River bl Rock Island Dam 1/	78300	104	Apr-Sept	74143	96939	49117	75290
	65400	102	Apr-July	63212	84480	41200	64181
	51500	102	Apr-June	47192	65246	32032	50594
Columbia River at The Dalles, Or 1/	105200	101	Apr-Sept	109012	139724	65162	104600
	89000	99	Apr-July	94328	123570	54260	89875
	72400	99	Apr-June	73078	99282	43395	73143
PEND OREILLE RIVER SYSTEM							
Pend Oreille River bl Box Canyon	16500	103	Apr-Sept	17559	21551	8311	15950
	15000	102	Apr-July	15872	20103	7614	14677
	12700	99	Apr-June	12587	16732	6756	12767
KETTLE RIVER SYSTEM							
Kettle River nr. Laurier	2050	109	Apr-Sept	1921	2831	1121	1873
	1950	109	Apr-July	1837	2752	1093	1794
	1780	108	Apr-June	1641	2476	1020	1640

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr Avg.	Fore-cast Period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr Average 58-72
KETTLE RIVER SYSTEM (Cont.)							
Colville River	Not		Apr-Sept		286	54	148
at Kettle Falls	Forecast		Apr-July		269	50	137
	Feb 1		Apr-June		252	48	128
SPOKANE RIVER SYSTEM*							
Spokane River	2700	90	Apr-Sept	3088		1140	2982
at Post Falls, ID 2/	2600	90	Apr-July	2944		1082	2899
	2500	90	Apr-June	2736		1022	2773
OKANOGAN RIVER SYSTEM							
Similkameen River	1740	115	Apr-Sept	1409	2216	736	1516
nr. Nighthawk	1640	115	Apr-July	1315	2092	697	1424
	1430	117	Apr-June	1073	1710	621	1222
Okanogan River	2070	120	Apr-Sept	1584	2757	765	1723
nr. Tonasket	1880	119	Apr-July	1439	2534	707	1582
	1600	119	Apr-June	1178	2029	622	1349
METHOW RIVER SYSTEM							
Methow River	1240	120	Apr-Sept		1665	512	1031
nr. Pateros	1160	120	Apr-July		1555	476	963
	990	119	Apr-June		1268	417	832
CHELAN RIVER SYSTEM							
Chelan River	1430	114	Apr-Sept	1368	1749	777	1253
at Chelan 3/	1280	115	Apr-July	1216	1508	680	1112
	1020	116	Apr-June	856	1115	544	881
Stehekin River	975	108	Apr-Sept		1223	541	904
at Stehekin	840	108	Apr-July		996	447	776
	660	110	Apr-June		717	352	600
Entiat	Not		Apr-Sept		387	145	239
nr. Ardenvoir	Forecast		Apr-July		347	131	220
	Feb 1		Apr-June		256	113	180

* Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho

2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast Period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
WENATCHEE RIVER SYSTEM							
Wenatchee River at Plain	1500	115	Apr-Sept		1910	790	1312
	1370	115	Apr-July		1652	709	1187
	1100	115	Apr-June		1188	589	956
Wenatchee River at Peshastin	2090	117	Apr-Sept	2000	2556	1033	1786
	1890	116	Apr-July	1811	2232	938	1629
	1550	117	Apr-June	1332	1632	786	1324
Stemilt Basin nr. Wenatchee	130	94	May-Sept				138*
YAKIMA RIVER SYSTEM							
Yakima River nr. Martin 4/	142	100	Apr-Sept	169	231	83	142
	128	98	Apr-July	155	214	76	131
	118	102	Apr-June	128	170	70	116
Yakima River at Cle Elum 5/	1000	103	Apr-Sept		1463	555	968
	900	103	Apr-July		1335	489	877
	800	105	Apr-June		1067	433	764
Yakima River nr. Parker 6/	1760	102	Apr-Sept			582	1730
	1750	103	Apr-July			590	1701
	1630	103	Apr-June			598	1580
Kachess River nr. Easton 7/	127	102	Apr-Sept	141	207	66	125
	120	102	Apr-July	135	193	63	118
	109	103	Apr-June	112	156	59	106
Cle Elum River nr. Roslyn 8/	526	110	Apr-Sept	545	745	285	477
	477	109	Apr-July	497	664	255	437
	412	111	Apr-June	392	500	220	372

* Thousands of Miners' inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast Period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
YAKIMA RIVER SYSTEM (Cont.)							
Bumping River	144	99	Apr-Sept	179	230	74	146
nr. Nile 9/	133	99	Apr-July	163	206	68	134
	113	101	Apr-June	119	152	61	112
American River							
nr. Nile	125	97	Apr-Sept		203	70	128
	116	98	Apr-July		181	65	118
	100	100	Apr-June		137	58	100
Tieton River	245	99	Apr-Sept	297	405	160	247
at Tieton Dam 10/	210	100	Apr-July	252	337	124	211
	179	104	Apr-June	187	255	99	172
Naches River	900	101	Apr-Sept		1428	442	889
nr. Naches 11/	820	101	Apr-July		1286	385	810
	720	103	Apr-June		1038	336	698
Ahtanum Creek	50	104	Apr-Sept		83	21	48
nr. Tampico 12/	46	105	Apr-July		76	18	44
	41	105	Apr-June		64	16	39
LOWER COLUMBIA RIVER SYSTEM							
Mill Creek	32	119	Apr-Sept		57	17	27
nr. Walla Walla	28	117	Apr-July		51	13	24
	25	119	Apr-June		47	11	21
Lewis River	1180	88	Apr-Sept	1196	1951	800	1341
at Ariel 13/	1030	89	Apr-July	1028	1760	666	1151
	920	89	Apr-June	891	1489	574	1028
Cowlitz River	2080	99	Apr-Sept		3323	1252	2101
Blw. Mayfield Dam	1840	100	Apr-July		2975	1068	1846
	1610	102	Apr-June		2416	904	1578

9/ Observed flow corrected for storage in Bumping Lake.
10/ Observed flow corrected for storage in Rimrock Lake.
11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.
12/ Observed flow of North and South Forks (Combined)
13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.
14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet % 15-Yr. Avg.	Fore-cast Period	1975	1974	1973	15-Yr. Average 58-72
LOWER COLUMBIA RIVER SYSTEM (Cont.)							
Cowlitz River at Castle Rock 14/	2910	105	Apr-Sept	2652	4128	1676	2773
	2500	104	Apr-July	2279	3694	1419	2416
	2190	105	Apr-June	1817	3029	1212	2083
OLYMPIC PENINSULA							
DUNGENESS RIVER SYSTEM							
Dungeness River nr. Sequim	161	98	Apr-Sept		205	120	165
	134	98	Apr-July		162	98	137
	102	98	Apr-June		111	74	104
PUGET SOUND							
SKAGIT RIVER SYSTEM							
Skagit River at Newhalem	3070	127	Mar-Aug	2770	3169	1610	2418

14/ Observed flow corrected for storage in Mayfield Reservoir.

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about February 1, 1976, as percent of the same date in 1975 and 1974 and average of record.

Tributary Basin	No. of Courses Average	1976 Snow Water Expressed as percent of 1975	1974	1958-72 Avg.
UPPER COLUMBIA BASIN				
Pend Oreille	8	62	67	66
Kettle	13	94	86	98
Colville	5	51	41	53
Spokane	4	81	75	91
Okanogan	30	93	82	107
Methow	10	94	61	92
Chelan	6	106	89	124
Entiat	11	110	85	102
Wenatchee	9	87	76	92
Yakima	23	75	61	86
Ahtanum	2	52	56	35
LOWER COLUMBIA				
Mill Creek	3	89	57	101
Klickitat	1	21	15	21
White Salmon	2	79	44	68
Lewis	18	84	50	60
Cowlitz	10	80	58	79
PUGET SOUND				
Nisqually	4	86	65	104
White	2	84	71	98
Green	7	63	53	92
Snoqualmie	1	-	50	99
Skykomish	2	94	89	108
Skagit	12	107	77	136
Baker	8	100	66	115
Nooksack	1	94	78	-
OLYMPIC PENINSULA				
Skokomish	4	87	52	66
Elwha	2	84	62	74

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE 1/ CAPACITY	Measured (February) 1976	1975	1974	Normal*
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	169.1	63.8	386.0	138.4
Columbia	Franklin D. Roosevelt Lake	5232.0	5116.0	4844.6	730.6	3766.0
Columbia	Banks Lake	761.8	712.2	714.9	720.3	566.9
Okanogan	Conconully Reservoir	13.0	10.0	10.6	5.6	10.8
Okanogan	Salmon Lake	10.5	9.8	9.2	7.3	7.6
Chelan	Lake Chelan	676.1	513.5	242.9	297.7	295.9
		YAKIMA				
Yakima	Keechelus Lake	157.8	118.3	127.8	87.3	96.1
Kachess	Kachess Lake	239.0	206.8	142.4	93.6	175.7
Cle Elum	Lake Cle Elum	436.9	308.4	338.2	168.7	232.9
Bumping	Bumping Lake	33.7	11.4	5.3	10.8	8.3
Tieton	Rimrock Lake	198.0	140.0	136.3	112.0	110.6
		PUGET SOUND				
Skagit	Ross Reservoir	1404.1	1258.7	1094.5	1231.4	582.1
Skagit	Diablo Reservoir	90.6	88.0	84.9	85.2	84.4
Skagit	Gorge Reservoir	9.8	8.3	8.2	7.6	--

1/ Based on Active Storage

* 15-year Average 1958-72

SOIL MOISTURE - FEBRUARY

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of Feb. 1 1976	1975	1974
OKANOGAN							
Salmon Meadows	19A2M	4500	48	5.4	3.6	2.0	3.7
Trout Creek	3-M	3600	48	7.3	4.0*	3.2	3.0
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	5.0
Lake Cle Elum	21B14M	2200	48	12.8	-	-	9.2
WALLA WALLA							
Couse	17C3m	3650	48	11.1	N/A	10.2	10.1
Helmers	17C2M	4400	48	12.0	N/A	8.8	9.8
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	11.6	8.6	11.3

* January 1, measurement
N/A Not Available

FALL SOIL MOISTURE

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of Oct. 1 1975	1974	1973
OKANOGAN							
Salmon Meadows	19A02M	4500	48	5.4	3.2	1.8	2.6
Trout Creek	3-M	3600	48	7.3	3.1	3.0	2.8
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	2.6
Lake Cle Elum	21B14M	2200	48	12.8	-	-	6.1
WALLA WALLA							
Couse	17C3m	3650	48	11.1	7.3	-	5.6
Helmers	17C2M	4400	48	12.0	6.5	-	7.6
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	8.6	5.4	6.0

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL Sept-Oct Observed	FALL 1975 2/ Departure	WINTER Nov-Dec 1975 Observed	WINTER Jan 1976 2/ Departure
Columbia in Canada	3.51	+0.96	9.62	+0.41
Pend Oreille - Spokane	4.27	-0.21	11.64	-1.29
Northeastern Washington	2.29	-0.49	6.46	-1.43
Southeastern Washington	2.94	-0.29	8.74	-0.23
Central Washington	5.47	+0.72	26.97	+6.94
North Central Washington	1.22	-0.40	4.91	-0.01
Northwest Slope Cascades	15.42	+2.73	47.39	+11.57
Southwest Slope Cascades	8.34	-0.34	33.26	+4.35

Northeastern Washington - Lower Spokane, Colville, Sanpoil and Lower Kettle drainages.

Southeastern Washington - Touchet, Tucannon and Palouse drainages.

Central Washington - Yakima, Wenatchee and Chelan drainages.

North Central Washington - Methow and Okanogan drainages.

Northwest Slope Cascades - Puget Sound drainages.

Southwest Slope Cascades - Lower Columbia drainages.

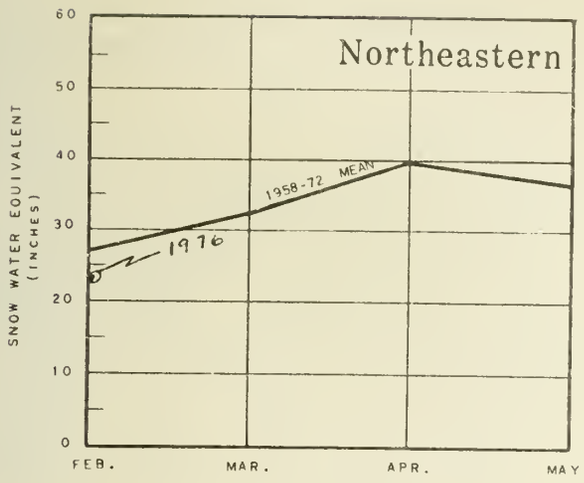
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

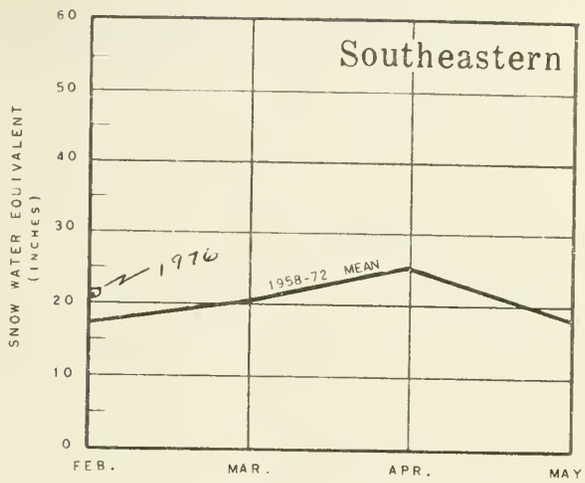
2/ - Departure from 15-year (1958-72) drainage division average.

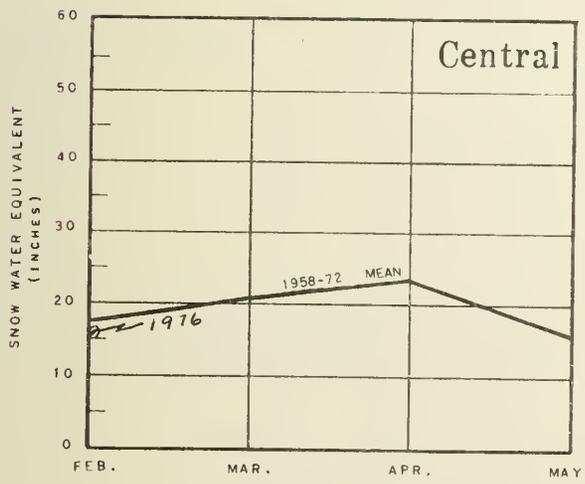
WASHINGTON SNOW COVER

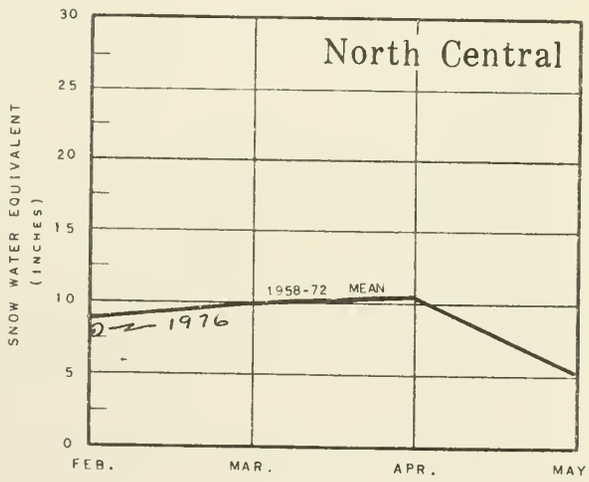
1976

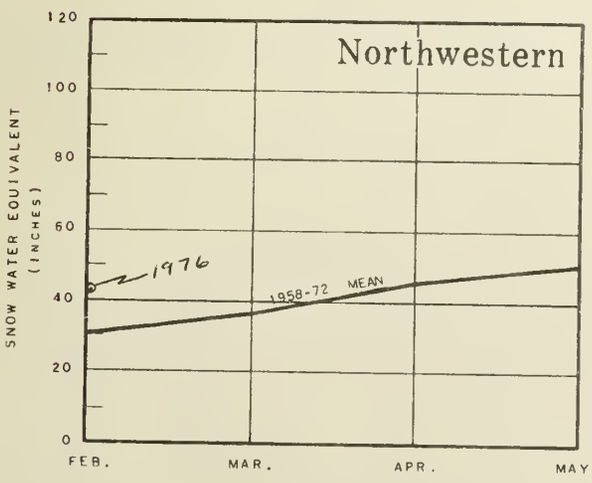
DRAINAGE AREAS

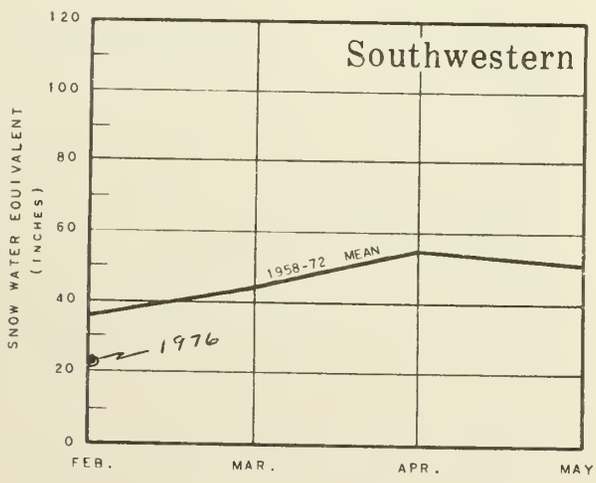








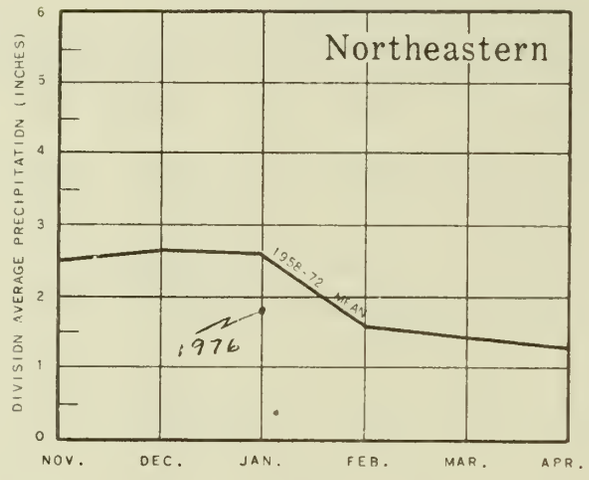


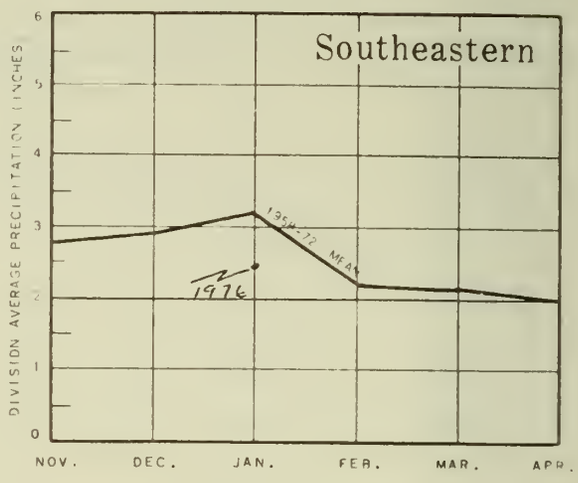


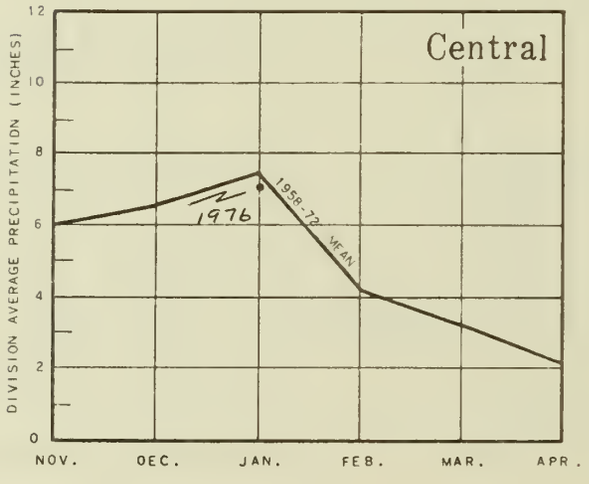
WASHINGTON VALLEY PRECIPITATION

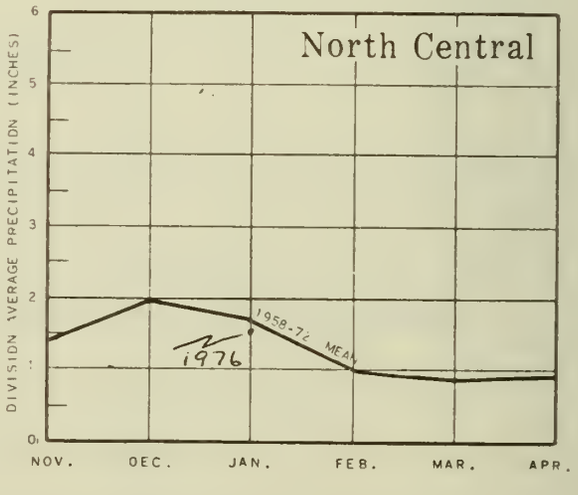
1976

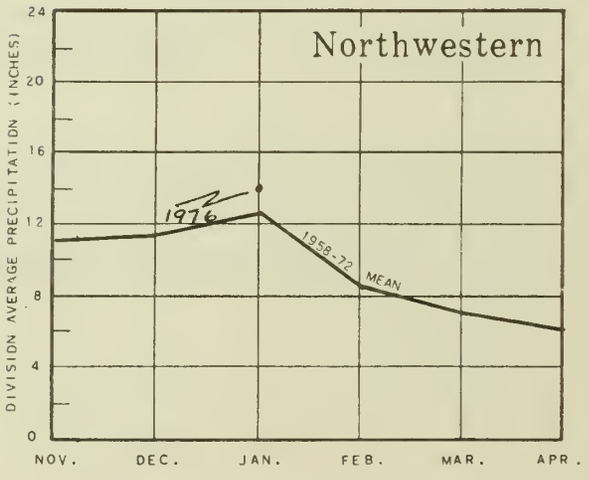
DRAINAGE AREAS

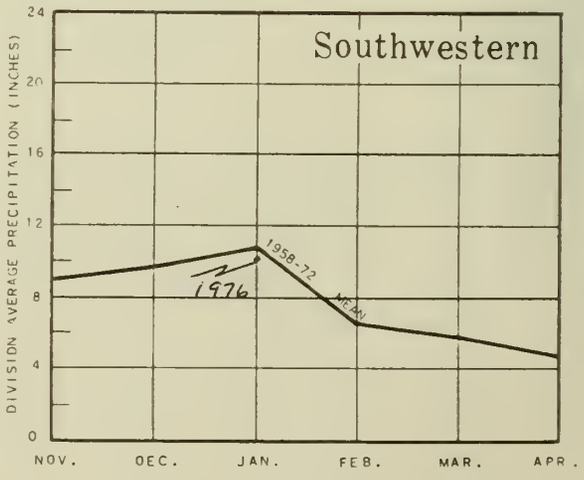






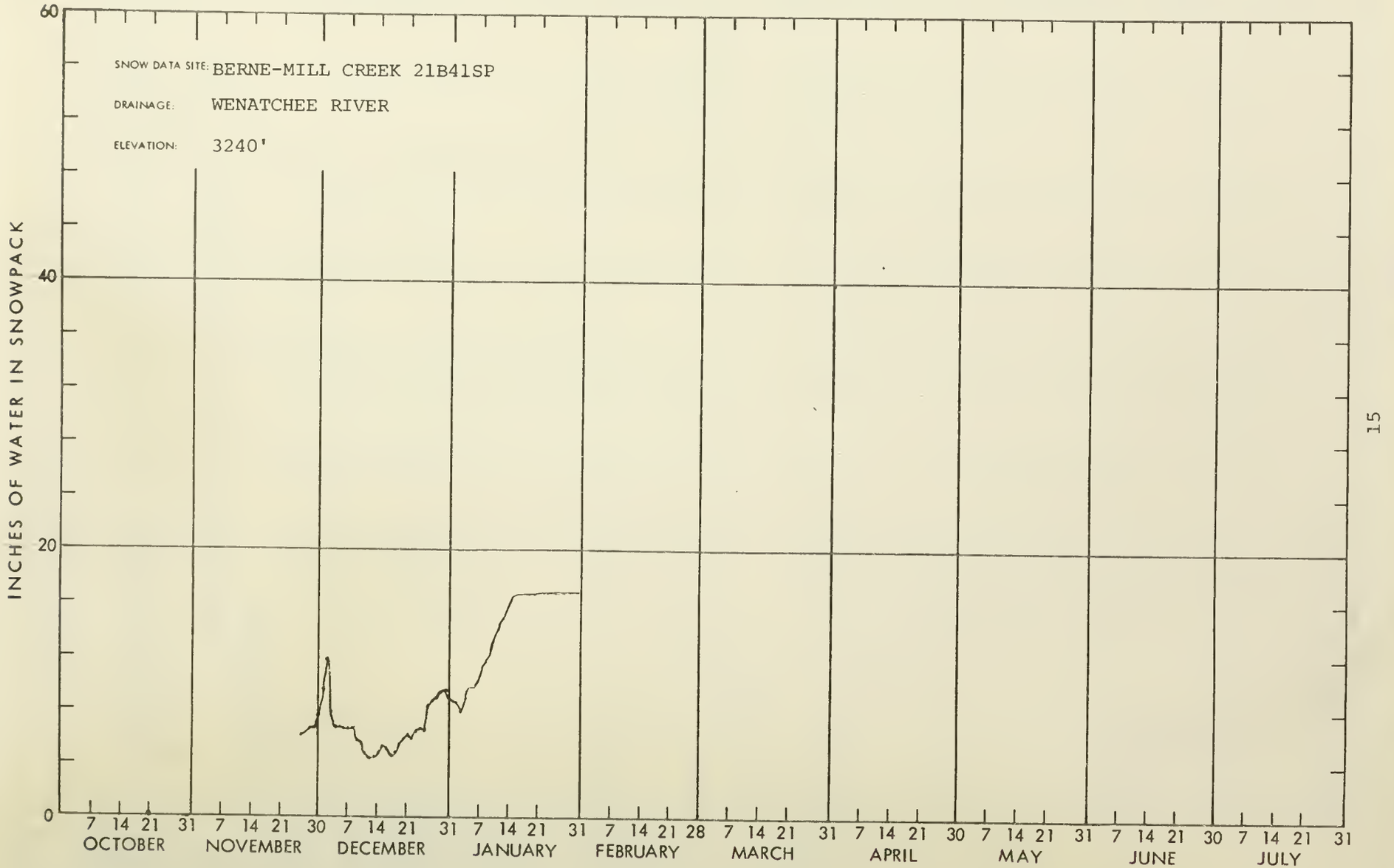






Preliminary Analysis by National Weather Service

WSFB-X13C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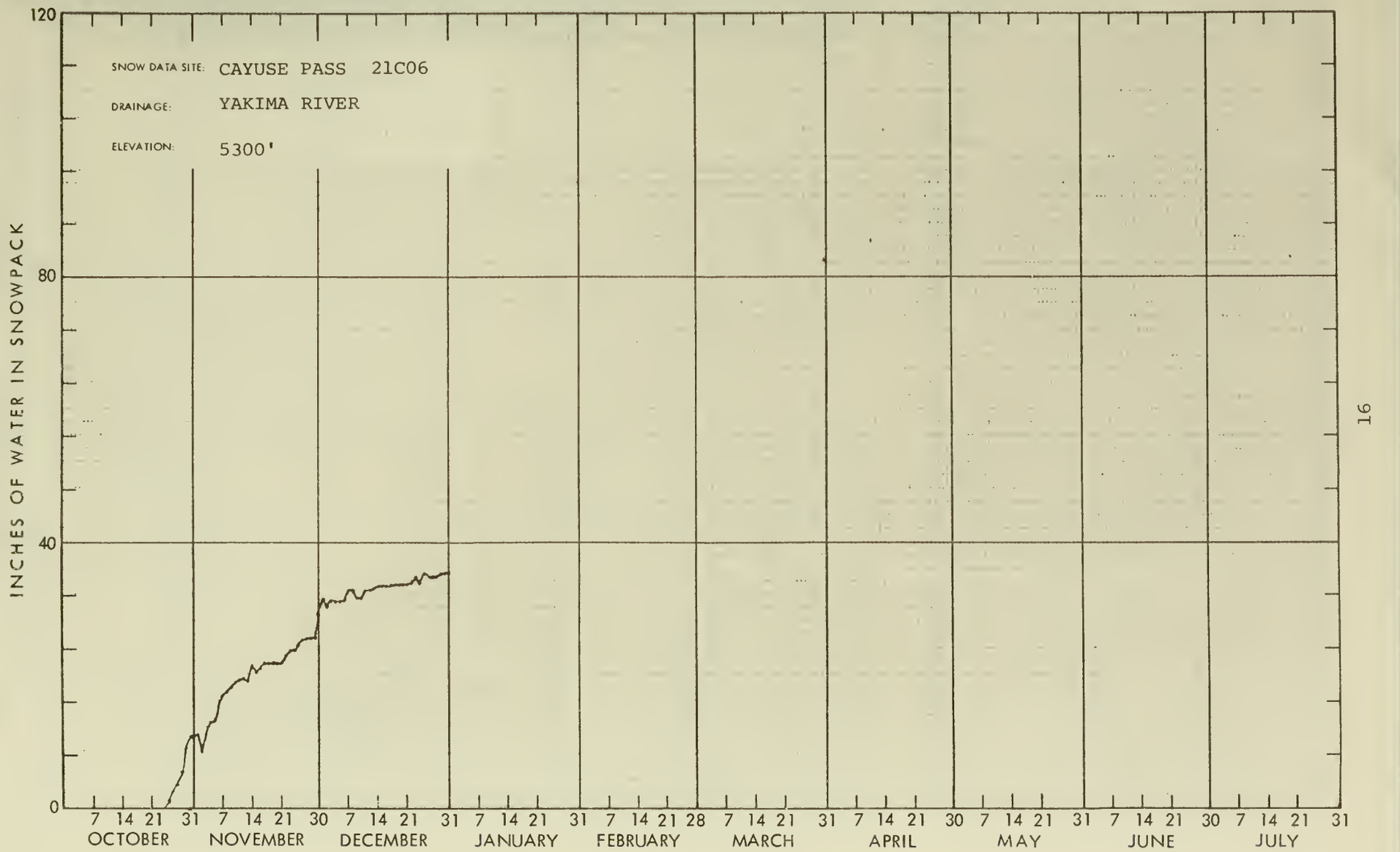
DRAINAGE: WENATCHEE RIVER
ELEVATION: 3240'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

15

WSFB-X13D


SNOW DATA SITE: CAYUSE PASS 21C06
DRAINAGE: YAKIMA RIVER
ELEVATION: 5300'
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Average #

U P P E R C O L U M B I A D R A I N A G E

PEND OREILLE RIVER

Benton Meadow	16A02	2344	12/29	Trace	0.0	1.9	3.5
			1/27	13	3.4	5.3	6.0
Benton Spring	16A03	4900	12/29	10	2.6	9.3	8.4
			1/30	21	6.2	14.8	13.8
Chewelah	17A04	4925	1/31	25	7.2	11.7	13.0
Lookout	15B02	5250	12/29	45	11.8	13.6	15.6
			1/30	71	23.4	26.0	26.7
Nelson	19-Can	3050	10/30	12	2.1	-	-
			11/13	7.1	1.4	1.6	-
			11/27	15	2.4	2.8	-
			12/12	11	2.5	3.6	-
			12/30	22	4.5	7.7	7.4*
			2/1	33	8.8	13.0	11.3*
Schweitzer Bowl	16A06	4500	12/30	33	8.8	16.6	-
			2/2	43	14.9	27.1	22.6
Schweitzer Ridge	16A05	6100	12/30	52	19.2	30.2	-
			2/2	70	27.5	43.2	32.1
Winchester Creek	17A03	2970	1/29	17	4.9	8.4	9.7

KETTLE RIVER

Barnes Creek	90-Can	5300	2/1	58	15.5	15.9	14.1*
Big White Mtn.	154-Can	5500	1/29	59	18.4	17.8	13.8*
Boulder Road	18A02	1450	12/29	11	2.5	2.4	2.7
			1/29	15	1.6	4.1	4.6
Butte Creek	18A03	4070	12/29	18	2.6	4.8	4.7
			1/29	23	6.2	7.8	7.4
Cabin Creek	18A08	3170	12/29	18	3.2	4.4	4.4
			1/29	22	5.7	6.8	6.5
Carmi	126-Can	4100	1/29	23	6.0	7.7	5.3*
Farron # 1	17-Can	4000	1/29	33	9.4	9.9	9.6*
Farron # 2	243-Can	4000	1/29	32	9.0	9.8	New
Goat Creek	18A04	3595	12/29	15	2.5	3.9	4.1
			1/29	18	4.8	5.9	6.2
Monashee Pass	48A-Can	4500	2/1	42	11.4	11.0	9.6*
Old Glory Mountain	42-Can	7000	1/31	64	14.5	25.5	19.0*
Snow Caps Creek	18A05	2150	12/29	12	2.1	2.2	3.0
			1/29	15	4.0	2.1	4.8
Snow Caps Trail	18A06	2720	12/29	16	2.1	3.2	3.5
			1/29	19	4.9	4.6	5.5
Summit G. S.	18A07	4600	12/29	15	1.8	4.5	3.8
			1/29	18	4.8	7.2	5.9

\# Average based on 1958-72 average
* Average for years of record

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 2

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
KETTLE RIVER (cont.)							
Trapping Creek Lower	166-Can	3050	1/29	23	6.1	6.5	4.4*
Trapping Creek Upper	165-Can	4450	1/29	39	9.2	9.8	7.4*
COLVILLE RIVER							
Baird	17A06	3215	1/30	15	3.8	6.6	6.1
Carlson	18A09	2885	1/31	9	2.6	5.6	4.5
Chewelah	17A04	4925	1/31	25	7.2	11.7	13.0
Stranger Mountain	17A05	4990	1/31	15	4.0	10.4	11.0
Togo	18A10	3370	1/31	20	5.6	11.1	10.1
SPOKANE RIVER							
Above Burke	15B08	4100	12/29	29	8.4	9.7	-
			1/30	54	16.1	16.2	-
Fourth of July Summit	16B03	3100	12/29	Trace	0.0	4.3	-
			1/29	17	5.4	9.8	6.8
Lookout	15B02	5250	12/29	45	11.8	13.6	15.6
			1/30	71	23.4	27.2	26.4
Mosquito Ridge	16A04	5110	1/27	65	22.3	-	-
Sherwin	16C01	3200	12/31	26	7.9	5.6	-
			1/30	38	11.6	14.4	11.0
OKANOGAN RIVER							
Aberdeen Lake	6A-Can	4300	2/2	22	5.9	6.5	5.0*
Blackwall Peak	100-Can	6250	12/30	78	28.9	17.3	14.7*
			1/26	92	33.8	27.5	25.3*
Brenda Mine	193-Can	4800	12/29	36	8.0	8.0	-
			1/28	44	12.7	13.0	9.9*
Brookmere	27-Can	3200	1/30	19	5.6	7.1	7.2*
Carrs Landing Upper	168-Can	3200	12/28	17	2.5	3.2	-
			1/29	18	3.8	6.6	3.8*
Clark +	19A8a	7000	1/30	38	12.5	16.8	-
Dollar Watch +	20A29a	7000	1/30	46	15.2	21.6	19.4
Enderby	130-Can	6250	2/2	88	30.2	31.5	25.0*
Freezeout Meadows New	20A38	5000	1/26	83	28.3	24.7	New
Hamilton Hill	107-Can	4900	1/29	49	14.9	12.3	10.4*
Harts Pass	20A05A	6500	1/28	122	43.7	36.1	32.7
Horseshoe Basin +	19A05a	7000	1/30	50	16.5	12.9	9.7
Isontok Lake	152-Can	5510	12/30	23	4.4	4.5	4.0*
			1/30	28	7.2	8.2	6.2*
Lost Horse Mtn.	105-Can	6300	1/30	33	10.2	7.8	6.7*
Loup Loup	19A07	4650	1/29	16	4.7	6.8	7.6

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 3

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
OKANOGAN RIVER (Cont.)							
McCulloch	4-Can	4200	12/30	20	3.2	4.4	3.2*
			1/27	27	6.6	7.4	4.8*
Missezula Mtn.	106-Can	5100	1/28	30	7.7	9.0	6.5*
Mission Creek	5A-Can	6000	12/29	38	9.3	10.9	8.9*
			1/28	54	15.4	17.0	13.6*
Monashee Pass	48A-Can	4500	2/1	42	11.4	11.0	9.6*
Mount Kobau	156-Can	5950	1/30	27	7.3	8.4	10.6*
Muckamuck +	19A09a	6390	1/30	40	13.2	11.2	-
Mutton Creek No. 1	19A01	5700	1/29	24	8.3	10.3	10.4
Mutton Creek No. 2	19A04	6000	1/29	31	9.2	9.0	10.9
Mutton Creek No. 2 SP	19A11SP	6000	1/29	-	6.9	7.0	New
New Penticton Res. # 2	183-Can	5225	1/30	30	7.7	8.9	7.5*
Oyama Lake	203-Can	4400	1/31	21	5.4	6.3	5.5*
Paysayten +	20A28a	4300	1/30	47	15.5	15.0	13.0
Postill Lake	55-Can	4500	1/30	24	6.6	8.2	5.9*
Rusty Creek	19A03	4000	1/28	12	3.1	5.0	5.9
Salmon Meadows	19A02	4500	1/28	19	5.6	6.5	7.8
Silver Star Mountain	99-Can	6050	12/31	68	18.0	18.0	14.2*
			2/1	68	25.1	26.1	19.1*
Starvation Mountain +	19A10a	6750	1/30	44	14.5	12.9	-
Summerland Reservoir	3A-Can	4200	1/1	28	6.0	6.5	4.6*
			2/1	31	9.2	10.9	7.7*
Touts Coulee	19A06	2845	1/28	11	1.6	1.6	3.4
Trout Creek	3-Can	4700	1/29	31	8.3	8.5	5.2*
Vaseux Creek	233-Can	4600	1/1	17	2.6	2.9	-
			1/31	21	4.7	6.0	5.5*
White Rocks Mtn.	70-Can	6000	1/29	56	18.7	24.0	18.5*
METHOW RIVER							
Billy Goat Pass +	21A10a	6409	1/30	58	19.1	18.9	20.8
Dollar Watch +	20A29a	7000	1/30	46	15.2	21.6	19.4
Harts Pass	20A05A	6500	1/28	122	43.7	36.1	32.7
Horseshoe Basin +	19A05A	7000	1/30	50	16.5	12.9	9.7
Loup Loup	19A07	4650	1/29	16	4.7	6.8	7.6
Mutton Creek No. 1	19A01	5700	1/29	24	8.3	10.3	10.4
Mutton Creek No. 2	19A04	6000	1/29	31	9.2	9.0	10.9
Rusty Creek	19A03	4000	1/28	12	3.1	5.0	5.9
Salmon Meadows	19A02	4500	1/28	19	5.6	6.5	7.8
War Creek Pass +	20A31a	6500	1/30	126	41.6	35.1	-

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average #
CHELAN LAKE BASIN							
Cloudy Pass +	20A22a	6500	1/30	119	39.3	40.6	29.0
Little Meadows +	20A24a	5275	1/30	116	38.3	34.3	32.2
Lyman Lake +	20A23A	5900	1/30	152	50.2	-	42.1
Park Creek Flat +	20A13a	2220	1/30	98	32.3	-	27.3
Park Creek Ridge	20A12A	4600	1/30	126	41.6	43.8	34.1
Rainy Pass	20A09	4780	1/28	117	38.7	35.6	29.5
War Creek Pass +	20A31a	6500	1/30	126	41.6	35.1	-
ENTIAT RIVER							
Blue Creek G. S. +	20B28a	5425	1/27	110	39.9	35.6	-
Brief	20B19	1600	1/28	23	7.5	6.1	6.8
Entiat Meadows +	20A33a	4800	1/27	118	42.8	39.6	-
Entiat River Trail +	20A34a	3150	1/27	62	19.4	17.2	-
Four Mile Ridge +	20B27a	7000	1/27	88	31.9	27.7	-
Fox Camp +	20A36a	6510	1/27	156	56.6	42.2	-
Pope Ridge	20B20	4300	1/29	42	13.0	16.5	14.0
Pugh Ridge	20A32a	6400	1/27	98	35.6	26.1	-
Shady Pass	20A37	6200	1/30	79	28.8	25.2	-
Snow Brushy +	20A35a	3850	1/27	77	24.1	28.7	-
Tommy Creek +	20B21a	5300	1/27	56	20.3	21.1	-
WENATCHEE RIVER							
Berne-Mill Creek	21B23	3170	11/23	26	8.0	5.4	4.1
			12/15	32	9.3	8.2	7.6
			12/30	40	11.0	15.3	11.2
			1/31	61	19.7	27.4	21.4
Berne-Mill Creek New	21B41SP	3240	11/26	17	6.0	5.2	-
			12/30	24	7.6	14.7	9.9
			1/31	41	16.0	23.2	18.7
Blewett Pass No. 2	20B02	4270	12/29	16	4.6	8.1	6.7
			1/29	28	10.1	15.6	13.0
Chiwaukum G. S.	20B16	1810	11/26	11	1.6	-	1.5
			12/15	17	4.6	2.5	3.2
			12/30	23	5.2	3.9	5.1
			1/14	51	7.9	8.7	7.8
			1/31	35	9.0	8.9	9.9
Lake Wenatchee	20B05	1970	11/26	18	3.6	0.6	1.5
			12/15	19	6.0	2.6	3.9
			12/30	32	8.4	5.4	6.1
			1/14	64	14.6	12.1	9.6
			1/31	44	13.1	13.0	12.1

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 5

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD Water Content (inches) Last Year	Average #
WENATCHEE RIVER (Cont.)							
Leavenworth R. S.	20B17	1127	10/31	0	0.0	0.0	0.0
			11/28	1.9	0.6	0.0	0.8
			12/15	2.0	0.8	1.0	1.8
			12/30	5.4	2.0	0.6	3.4
			1/15	20	5.8	5.8	4.7
			1/28	12	6.0	4.9	6.0
Lyman Lake	20A23A	5900	1/30	152	50.2	-	42.1
Merritt	20B18	2140	11/26	19	4.0	1.9	2.3
			12/15	17	6.0	3.8	4.9
			12/30	19	4.6	7.7	7.9
			1/14	62	11.4	15.8	11.7
			1/31	36	11.2	17.2	14.5
Stevens Pass	21B01	4070	11/13	45	9.9	2.4	3.6
			11/26	43	13.0	9.2	8.9
			12/15	56	20.0	15.1	14.7
			12/30	71	25.3	29.4	21.7
			1/14	127	40.3	41.9	29.0
			1/31	98	39.8	46.0	37.0
Stevens Pass Sand Shed	21B45	3700	11/26	29	9.2	6.0	-
			12/15	39	13.4	9.9	-
			12/30	52	16.6	18.2	-
			1/14	98	28.0	29.3	-
			1/31	70	30.0	29.5	-
COLOCKUM CREEK							
Colockum Creek Upper	20B22	5300	1/27	8	3.2	15.2	-
Colockum Creek Lower	20B23	4300	1/27	13	3.2	7.5	-
SQUILCHUCK CREEK							
Beehive Springs	20B03	4400	1/26	6	1.7	6.2	6.6
Scout-A-Vista	20B04	3400	1/26	16	4.2	7.0	6.5
STEMILT CREEK							
Jump-Off	20B08	4450	1/26	12	3.4	7.4	6.7
Stemilt Slide	20B06	5000	1/26	29	8.6	11.0	12.4
Upper Wheeler	20B07	4400	1/26	8	3.1	8.6	8.3

Average based on 1958-72 average

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 6

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR: Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	Average #
YAKIMA RIVER							
Ahtanum R. S.	21C11	3100	12/31	3.4	1.0	2.6	3.1
			1/27	8.0	2.2	**6.8**	6.3
Blewett Pass No. 2	20B02	4270	12/29	16	4.6	8.1	6.7
			1/29	28	10.1	15.6	13.0
Bumping Lake Old	21C08	3450	12/18	9.0	2.3	3.4	4.0
			12/31	14	3.7	5.9	7.1
			1/18	31	7.6	11.9	10.4
			1/31	28	8.7	13.1	13.2
Bumping Lake New	21C36	3400	12/18	16	4.8	5.2	5.8
			12/31	21	5.6	8.7	8.7
			1/18	44	12.0	15.2	13.0
			1/31	38	12.7	18.2	18.3
Cayuse Pass	21C06	5300	1/1	90	35.0	37.8	33.2
			1/28	143	61.2	60.5	58.7
Colockum Pass	20B09	5370	1/28	31	10.9	13.6	11.2
Cooke Creek	20B10	4123	1/28	0	0.0	6.2	7.2
Corral Pass	21B13	6000	1/30	80	30.4	-	-
Grouse Camp	20B11	5385	1/26	30	9.9	13.8	12.1
High Creek	20B12	2930	1/26	21	5.7	5.9	4.9
Joe Lake +	21B46a	4624	1/23	147	58.8	45.0	-
Green Lake	21C10	6000	1/27	61	23.0	31.8	-
Lake Cle Elum	21B14M	2200	10/31	0	0.0	0.0	-
			11/13	3.0	0.4	0.0	-
			11/26	0	0.0	0.6	1.1
			12/16	4.0	1.3	0.8	2.2
			1/5	20	4.8	4.6	4.2
			1/16	30	10.4	10.6	6.5
			1/30	24	8.3	10.3	8.2
Lemah Creek +	21B47a	3327	1/23	84	33.6	32.6	-
Manashtash	20C01	3935	1/27	0	0.0	4.9	3.9
Morse Lake	21C17	5400	1/28	97	36.7	55.6	39.4
Nanum	20B13	3875	1/26	20	6.2	9.8	7.8
Olallie Meadows	21B02	3625	1/30	79	32.5	-	32.7
Satus Pass	20D01	4030	1/30	7.0	1.8	8.6	8.7
Stampede Pass SP	21B10	3860	12/4	-	12.7	8.8	6.3
			12/16	-	17.0	15.1	11.9
			1/1	-	23.2	-	16.5
			1/18	-	38.5	44.1	22.0
			1/29	-	38.4	46.8	28.7
Trail Creek	20B14	3360	1/28	0	0.0	3.8	2.3
Tunnel Avenue	21B08	2450	10/31	0	0.0	0.0	-
			11/14	10	2.2	0.0	0.0
			11/28	12	3.0	3.0	2.7
			12/16	16	4.6	5.8	6.4
			12/31	24	6.2	10.6	9.2
			1/15	63	16.5	24.3	11.3
			1/29	46	15.7	23.9	17.6

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 7

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
YAKIMA RIVER (Cont.)							
Van Epps Pass +	20B26a	5925	1/23	104	41.6	38.1	-
Walters Flat	20B15	3360	1/26	16	5.4	7.2	6.3
Waptus Lake +	21B49a	3024	1/23	84	33.6	36.6	-
White Pass (E. Side)	21C28	4500	12/18	17	4.8	5.5	6.3
			12/31	23	6.6	9.6	9.6
			1/15	54	14.0	18.9	14.0
			1/29	40	12.7	20.9	18.2
White Pass (L. Lake)	21C27	4500	12/30	18	5.7	12.9	11.8
			1/27	41	13.9	23.4	22.0
AHTANUM CREEK							
Ahtanum R. S.	21C11	3100	12/31	3.4	1.0	2.6	3.1
			1/27	8.0	2.2	6.8	6.3
Green Lake	21C10	6000	1/27	61	23.0	31.8	-
LOWER COLUMBIA DRAINAGE							
ASOTIN CREEK							
Spruce Springs	17C04	5700	1/29	51	18.8	20.1	19.3
MILL CREEK							
Homestead	17C01	4030	1/27	17	5.9	7.1	6.5
Martin Springs	17C02	4400	1/27	30	9.8	11.2	9.8
Tollgate	18D3M	5070	1/28	61	20.7	19.6	16.7
KLICKITAT RIVER							
Satus Pass	20D01	4030	1/30	7.0	1.8	8.6	8.7
WHITE SALMON RIVER							
Cultus Creek	21C12	4000	12/27	36	12.9	14.7	17.8
			1/28	66	23.3	27.1	32.5
Surprise Lakes	21C13A	4250	12/27	33	12.3	16.5	20.1
			1/28	62	23.5	32.7	35.9
WIND RIVER							
Old Man Pass	21D19	3100	12/27	3.9	0.9	3.0	7.5
			1/28	21	6.0	9.9	14.7

\# Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 8

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
LEWIS RIVER							
Blue Lake +	21C22a	4800	12/31	82	28.7	27.9	34.5
			1/26	140	53.2	51.1	60.5
Bob's Trail	21C21	2200	12/31	9.4	2.0	2.9	6.5
			1/26	25	7.4	9.6	12.0
Calamity Ridge +	22D01a	2500	12/31	8.0	1.6	2.5	3.9
			1/26	4.0	1.4	4.0	5.6
Council Pass +	21C18	4200	12/27	30	11.1	18.6	18.6
			1/26	69	26.2	26.6	29.7
Cultus Creek	21C12	4000	12/27	36	12.9	14.7	17.8
			1/28	66	23.3	27.1	32.5
Divide Meadow	21C29a	5600	12/27	60	22.8	24.2	27.5
			1/26	108	41.0	43.2	42.3
Grand Meadow	21C25	3500	12/31	21	6.1	8.2	10.5
			1/28	40	13.9	17.4	19.4
Lone Pine Shelter	21C26	3800	12/30	42	13.8	11.6	17.0
			1/29	63	23.2	23.4	30.5
Marble Mountain +	22C05a	3200	12/27	2.0	0.7	2.2	12.7
			1/26	23	9.2	8.7	28.7
Mosquito Meadows	21C19	4100	12/30	42	14.6	12.7	18.9
			1/29	66	25.1	24.7	32.1
New Muddy River	22C06	2000	12/27	3.1	1.0	1.1	6.4
			1/26	14	4.4	4.0	12.1
Old Man Pass	21D19	3100	12/27	3.9	0.9	3.0	7.5
			1/28	21	6.0	9.9	14.7
Plains of Abraham +	22C01a	4400	12/31	58	20.3	21.8	28.8
			1/26	75	30.0	31.1	45.2
Smith Creek Road	22C04	2100	12/31	6.9	0.8	2.2	9.5
			1/26	18	6.3	8.6	15.7
Spencer Meadow +	21C20a	3400	12/31	10	2.9	4.5	10.2
			1/26	24	7.9	11.2	17.9
Surprise Lakes	21C13A	4250	12/27	33	12.3	16.5	20.1
			1/28	62	23.5	32.7	35.9
Table Mountain +	21C24a	4200	12/27	36	13.3	18.6	21.4
			1/26	82	28.7	30.2	34.8
Timbered Peak +	21D18a	3000	12/31	10	2.2	3.1	8.0
			1/26	10	3.3	6.8	14.3
COWLITZ RIVER							
Cayuse Pass	21C06	5300	1/1	90	35.0	37.8	41.3
			1/28	143	61.2	60.5	58.7
Mosquito Meadows	21C19	4100	12/30	42	14.6	12.7	18.9
			1/29	66	25.1	24.7	32.1
Ohanapecosh	21C32	2200	12/30	7.4	2.1	6.8	4.9
			1/28	29	9.9	15.2	14.4

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 9

SNOW — DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR: Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	Average #
COWLITZ RIVER (Cont.)							
Packwood Lake	21C31	2870	1/1	8.0	2.0	4.0	4.7
			1/28	22	7.8	10.6	10.6
Pigtail Peak	21C33	5900	12/30	88	31.3	26.8	26.1
			1/27	126	47.7	29.5	46.7
Plains of Abraham +	22C01a	4400	12/31	58	20.3	21.8	28.8
			1/26	75	30.0	31.1	45.2
Potato Hill	21C14	4500	1/1	33	10.3	13.2	12.8
			1/29	53	18.8	26.3	23.7
White Pass (E. Side)	21C28	4500	12/18	17	4.8	5.5	6.3
			12/31	23	6.6	9.6	9.6
			1/15	54	14.0	18.9	14.0
			1/29	40	12.7	20.9	18.2
White Pass (L. Lake)	21C27	4500	12/30	18	5.7	12.9	11.8
			1/27	41	13.9	23.4	22.0
Willame Creek	21C30	3250	1/1	28	8.8	11.6	10.8
			1/28	50	18.2	22.9	22.3
PUGET SOUND DRAINAGE							
NISQUALLY RIVER							
Ghost Forest	21C04	4550	12/29	48	19.8	20.6	13.6
			1/26	93	35.7	34.7	31.7
Longmire	21C03	2760	12/29	2.7	1.0	5.5	2.5
			1/26	17	6.8	12.7	8.3
New Paradise Park	21C35	5500	12/29	76	33.8	35.8	24.9
			1/26	130	54.8	59.2	50.2
Stem Glade	21C01	5050	12/29	80	32.4	32.4	24.9
			1/26	135	53.9	57.7	48.3
WHITE RIVER							
Cayuse Pass	21C06	5300	1/1	90	35.0	37.8	41.3
			1/28	143	61.2	60.5	58.7
Corral Pass	21B13	6000	1/30	80	30.4	-	-
Crystal Mtn.		6000	12/6	44	13.0	-	New
Morse Lake	21C17	5400	1/28	97	36.7	55.6	39.4
GREEN RIVER							
Airstrip	21B24	1800	12/27	0	0.0	2.0	2.5
			1/26	19	7.6	12.4	4.9
Charley Creek	21B25	1200	12/27	0	0.0	2.0	1.6
			1/26	0	0.0	1.0	1.5

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 10

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
GREEN RIVER (Cont.)							
Cougar Mountain	21B42SP	3200	1/7	22	4.6	8.4	-
			1/30	22	7.7	-	-
Grass Mtn. No. 2	21B27	2900	12/27	10	2.7	4.3	7.6
			1/26	18	6.7	12.2	15.3
Grass Mtn. No. 3	21B28	2100	12/27	1.4	0.3	3.5	2.6
			1/26	10	3.3	8.0	5.3
Lester Creek	21B29	3100	12/27	28	8.0	10.2	9.7
			1/26	52	17.4	22.8	17.8
Lynn Lake	21B50	4000	12/27	6.0	1.1	7.5	-
			1/26	17	8.7	18.3	-
Sawmill Ridge	21B31	4700	12/27	51	15.8	15.6	15.2
			1/26	76	29.0	33.0	28.6
Snowshoe Butte	21B43SP	5000	1/30	96	33.3	-	-
Stampede Pass SP	21B10	3860	12/4	-	12.7	8.8	6.3
			12/16	-	17.0	15.1	11.9
			1/1	-	23.2	-	16.5
			1/18	-	38.5	44.1	22.0
			1/29	-	38.4	46.8	28.7
Twin Camp	21B30	4100	12/27	26	7.7	10.7	11.3
			1/26	48	16.8	24.2	17.6
SNOQUALMIE RIVER							
Olallie Meadows	21B02	3625	1/30	79	32.5	-	32.7
SKYKOMISH RIVER							
Stevens Pass	21B01	4070	11/13	45	9.9	2.4	3.6
			11/26	43	13.0	9.2	8.9
			12/15	56	20.0	15.1	14.7
			12/30	71	25.3	29.4	21.7
			1/14	127	40.3	41.9	29.0
			1/31	98	39.8	46.0	37.0
Stevens Pass Sand Shed	21B45	4070	11/26	29	9.2	6.0	-
			12/15	39	13.4	9.9	-
			12/30	52	16.6	18.2	-
			1/14	98	28.0	29.3	-
			3/31	70	30.0	29.5	-
SKAGIT RIVER							
Beaver Creek Trail	21A04	2200	1/29	34	12.0	14.9	-
Beaver Pass	21A01	3680	1/28	62	23.6	20.6	-
Brown Top Ridge +	21A28a	6000	1/26	162	60.8	46.2	-
Cloudy Pass +	20A22a	6500	1/30	119	39.3	40.6	29.0

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 11

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR Date of Survey	Snow Depth (inches)	Water Content (inches)	PAST RECORD Water Content (inches) Last Year	Average +#
SKAGIT RIVER (Cont.)							
Devils Park	20A04	5900	1/28	122	45.5	39.6	31.9
Freezeout Creek Trail	20A01	3500	1/26	32	9.8	10.6	-
Freezeout Meadows New	20A38	5000	1/26	83	28.3	24.7	-
Granite Creek	21A29A	3500	1/29	57	19.2	16.4	-
Harts Pass	20A05A	6500	1/28	122	43.7	36.1	32.7
Lyman Lake	20A23A	5900	1/30	152	50.2	-	42.1
Meadow Cabins	20A08	1900	1/29	23	7.8	7.1	-
New Hozomeen Lake	21A30	2800	1/29	27	8.7	9.0	-
Rainy Pass	20A09	4780	1/28	117	38.7	35.6	29.5
Thunder Basin	20A07	4200	1/29	46	14.3	18.8	-
BAKER RIVER							
Baker Pass +	21A27a	4900	11/28	86	26.0	-	-
			12/31	114	40.0	35.0	-
			1/28	160	67.0	53.0	-
Dock Butte +	21A11A	3800	11/28	54	16.0	-	-
			12/31	73	26.0	32.0	-
			1/28	118	50.0	50.0	44.8
Easy Pass +	21A07A	5200	11/28	68	20.0	-	-
			12/31	125	44.0	42.0	-
Jasper Pass +	21A06A	5400	11/28	100	30.0	-	-
			12/31	145	51.0	52.0	-
			1/28	192	81.0	72.0	65.7
Marten Lake	21A09A	3600	11/28	86	26.0	-	-
			12/31	108	38.0	42.0	-
			1/28	155	65.0	58.0	52.2
Mt. Blum +	21A18a	5800	11/28	60	18.0	-	-
			12/31	117	41.0	36.0	-
Panorama New	21A26	4300	1/15	135	41.6	50.2	-
			2/1	99	48.2	51.2	-
Rocky Creek	21A12A	2100	11/28	22	7.0	-	-
			12/31	30	10.0	16.0	-
			1/28	50	21.0	25.0	21.5
Schreibers Meadow	21A10A	3400	11/28	47	14.0	-	-
			12/31	69	24.0	27.0	-
			1/28	80	34.0	34.0	39.9
S. F. Thunder Creek +	21A14A	2200	11/28	2.0	1.0	-	-
			12/31	6.0	2.0	8.0	-
			1/28	30	13.0	15.0	7.4
Watson Lakes	21A08A	4500	11/28	48	14.0	-	-
			12/31	62	22.0	34.0	-
			1/28	96	40.0	53.0	42.9

\# Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO FEBRUARY 1, 1976 - APPENDIX 12

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
NOOKSACK RIVER							
Panorama New	21A26	4300	1/15	135	41.6	50.2	-
			2/1	99	48.2	51.2	-
OLYMPIC PENINSULA							
MORSE CREEK							
Cox Valley	23B14	4500	1/30	66	25.2	27.5	-
ELWHA RIVER							
Hurricane	23B03	4500	1/28	34	12.3	16.3	16.7
SKOKOMISH RIVER							
Black & White	23B07	4200	12/30	42	15.8	12.5	16.9
			1/27	56	22.5	23.8	30.5
Black & White Lakes	23B06	4700	12/30	51	21.8	22.2	26.0
			1/27	72	31.2	36.6	43.9
Four Streams	23B10	3000	12/30	7.0	3.2	3.8	15.1
			1/27	23	8.6	13.2	24.7
Home Sweet Home	23B05	5200	12/30	83	29.0	29.2	36.2
			1/27	115	46.3	45.2	56.5

USDA SCS PORTLAND OREGON 1973

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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SOIL CONSERVATION SERVICE
ROOM 360, U.S. COURT HOUSE
SPOKANE, WASHINGTON 99201

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"The Conservation of Water begins with the Snow Survey"

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WATER SUPPLY OUTLOOK FOR WASHINGTON

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Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
MAR. 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

USDA-SCS-PORTLAND, OREG. 1979

WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

JOHN A. BIGGS

DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201

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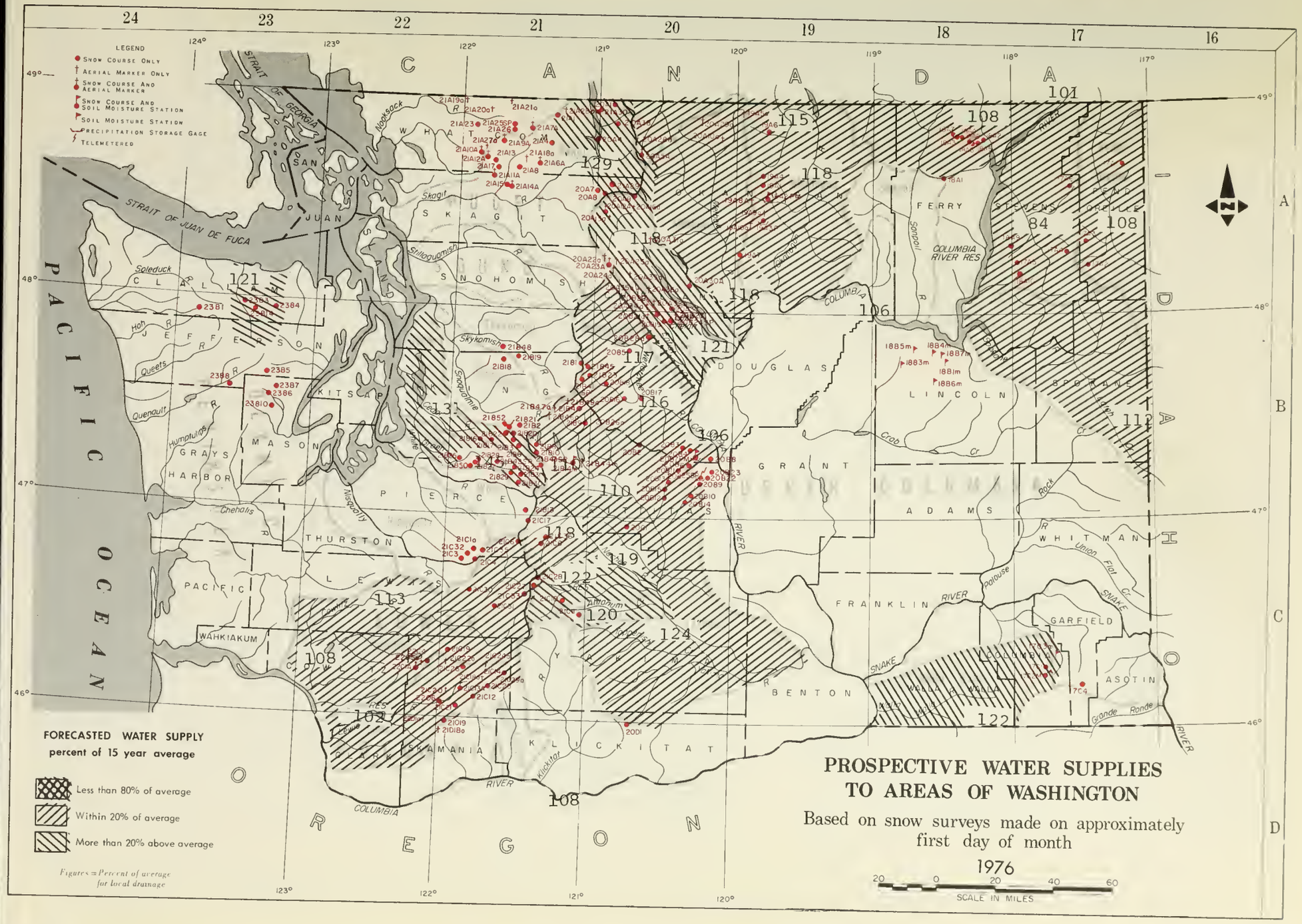


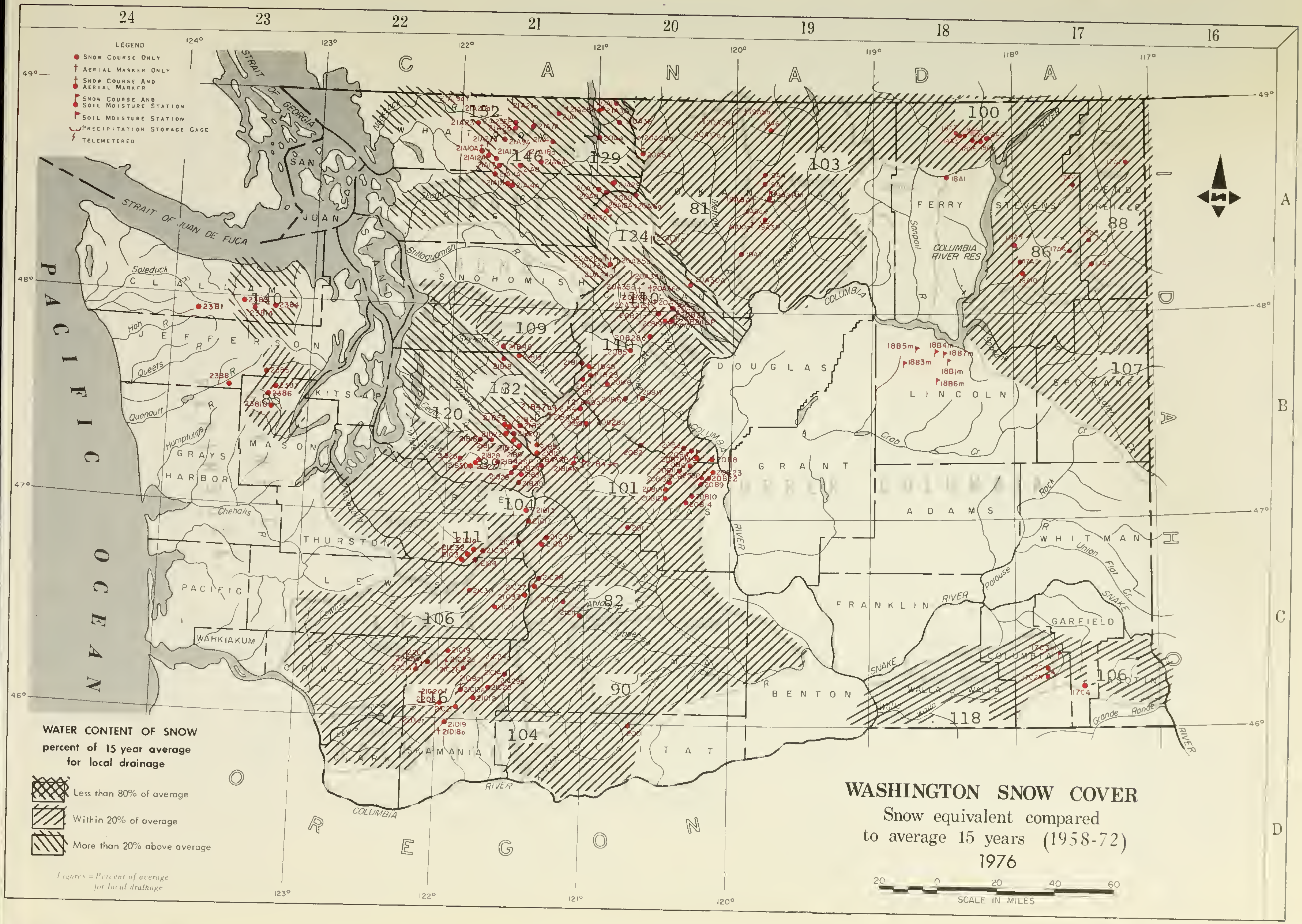
INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
UPPER COLUMBIA DRAINAGE					
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	38E	3370
Sanpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5350
Okanogan River					
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845
Methow River					
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650
Chelan Lake Basin					
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Entiat River					
Blue Creek G.S.	20828a	19	28N	18E	5425
Brief	20819	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20827a	15	28N	19E	7000
Fox Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20824SP	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20821a	10	28N	18E	5300
Wenatchee River					
Berne-Mill Creek	21823	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	2082	35	22N	17E	4270
Chiwaukum G. S.	20816	4	25N	17E	1810
Lake Wenatchee	20B5	32	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20818	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21845	12	26N	19E	3700
Wenatchee River (continued)					
Trough #2	20B25SF	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
Beehive Springs	2083	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	2086	30	21N	20E	5000
Upper Wheeler	2087PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	1881m	32	27N	34E	2440
Jack Woods	1883m	28	27N	31E	2750
Krause	18B4m	21	27N	33E	2420
Sheffels	1885m	17	27N	32E	2378
Sherman	1887m	24	27N	33E	2440
Wheatridge	1886m	24	25N	32E	2290
Yakima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	2189	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20810	17	19N	20E	4123
Oomery Flat	21B44m	15	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20811	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20814	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20815	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500
LOWER COLUMBIA DRAINAGE					
Asotin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Klickitat River					
Satus Pass	2001	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	2201a	8	5N	5E	2500
Council Pass	21C18a	24	9N	9E	4200
Lewis River (continued)					
Divide Meadow	21C29a	21	9N	10E	5600
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3800
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	2000
Oldman Pass	21019	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21018a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250
PUGET SOUND DRAINAGE					
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C35	13	15N	8E	5500
Stem Glade	21C1	13	15N	8E	5050
White River					
Corral Pass	21813	30	18N	11E	6000
Green River					
Airstrip	21B24	18	20N	11E	1800
Charley Creek	21825	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21828	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100
Cedar River					
City Cabin	2183	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21822	31	22N	10E	2500
Mt. Lindsay	21816	31	22N	9E	2500
Mt. Washington New	21852	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21B48	31	27N	9E	3500
Olallie Meadows	2182	19	22N	11E	3625
South Fork Tolt	21818	26	26N	9E	1900
Skykamish River					
Lake Elizabeth	21819	33	26N	10E	2900
Skagit River					
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksack River					
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200
OLYMPIC PENINSULA					
Dungeness River					
Deer Park	2384	1	28N	5W	5200
Morse Creek					
Cox Valley	23814	31	29N	6W	4500
Elwha River					
Hurricane	23B3	36	29N	7W	4500
Skokomish River					
Black and White	23B7	17	24N	5W	4200
Black and White Lakes	2386	16	24N	5W	4700
Four Stream	23810	1	23N	6W	3000
Home Sweet Home	23B5	28	25N	5W	5200
Sundown Pass	23B8	25	24N	7W	3900
Soleduck River					
Deer Lake	2381	14	28N	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A* Snow Course Only
21A7a Aerial Marker Only
21A7A Snow Course and Aerial Marker
21A7M Snow Course and Soil Moisture Station
21A7m Soil Moisture Station
21A7P Snow Course and Precipitation Storage Gage
21A7p Precipitation Storage Gage
21A7SP Snow Pillow


LEGEND
Snow Course Only
Aerial Marker Only
Snow Course And Aerial Marker
Snow Course And Soil Moisture Station
Soil Moisture Station
Precipitation Storage Gage
Telemetered
WATER CONTENT OF SNOW
percent of 15 year average
for local drainage
Less than 80% of average
Within 20% of average
More than 20% above average
Figures = Percent of average for local drainage
CANADA
OREGON
IDAHO
PACIFIC OCEAN
STRAIT OF GEORGIA
STRAIT OF JUAN DE FUCA
SAN JUAN
CLALLAM
JEFFERSON
GRAYS HARBOR
MASON
KITSAP
THURSTON
PACIFIC
WAHKIAKUM
LEWIS
COWLITZ
CLARK
SKAMANIA
WHATCOM
SKAGIT
SNOHOMISH
KING
PIERCE
YAKIMA
KLICKITAT
KITTITAS
CHELAN
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SPOKANE
WHITMAN
GARFIELD
COLUMBIA
WALLA WALLA
ASOTIN
COLUMBIA RIVER RES
132
146
129
81
103
100
124
140
109
118
110
132
120
104
101
111
82
106
90
116
104
86
88
107
106
118
WASHINGTON SNOW COVER
Snow equivalent compared
to average 15 years (1958-72)
1976
SCALE IN MILES
20 0 20 40 60

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
UPPER COLUMBIA DRAINAGE					
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	38E	3370
Sonpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5350
Okonogan River					
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845
Methow River					
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650
Chelon Lake Basin					
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Entiot River					
Blue Creek G.S.	20B28a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20B21a	10	28N	18E	5300
Wenatchee River					
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Wenatchee River (continued)					
Trough #2	20B25SP	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	18B1m	32	27N	34E	2440
Jack Woods	18B3m	28	27N	31E	2750
Krause	18B4m	21	27N	33E	2420
Sheffels	18B5m	17	27N	32E	2378
Sherman	18B7m	24	27N	33E	2440
Wheatridge	18B6m	24	25N	32E	2290
Yokima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Oomery Flat	21B44m	15	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500

LOWER COLUMBIA DRAINAGE

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Asotin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Klickitat River					
Satus Pass	2001	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	2201a	8	5N	5E	2500
Council Pass	21C18a	24	9N	9E	4200

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Lewis River (continued)					
Divide Meadow	21C29a	21	9N	10E	5600
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3800
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	2000
Oldman Pass	21D19	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21D18a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250

PUGET SOUND DRAINAGE

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C35	13	15N	8E	5500
Stem Glade	21C1	13	15N	8E	5050
White River					
Corral Pass	21B13	30	18N	11E	6000
Green River					
Airstrip	21B24	18	20N	11E	1800
Charley Creek	21B25	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100
Cedar River					
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21B52	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21B48	31	27N	9E	3500
Olallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B18	26	26N	9E	1900
Skykomish River					
Lake Elizabeth	21B19	33	26N	10E	2900

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Skagit River					
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksock River					
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

OLYMPIC PENINSULA

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Dungeness River					
Deer Park	23B4	1	28N	5W	5200
Morse Creek					
Cox Valley	23B14	31	29N	6W	4500
Elwho River					
Hurricane	23B3	36	29N	7W	4500
Skokomish River					
Black and White	23B7	17	24N	5W	4200
Black and White Lakes	23B6	16	24N	5W	4700
Four Stream	23B10	1	23N	6W	3000
Home Sweet Home	23B5	28	25N	5W	5200
Sundown Pass	23B8	25	24N	7W	3900
Soleduck River					
Deer Lake	23B1	14	28N	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7 Snow Course Only
21A7a Aerial Marker Only
21A7A Snow Course and Aerial Marker
21A7M Snow Course and Soil Moisture Station
21A7m Soil Moisture Station
21A7P Snow Courses and Precipitation Storage Gage
21A7p Precipitation Storage Gage
21A7SP Snow Pillow

WATER SUPPLY OUTLOOK

State of Washington
March 1, 1976

As the snow season progresses, it appears more and more likely that adequate water supplies will be available from all rivers flowing through the state of Washington. We have a wide range of snow cover, but the resultant forecasts are all for near normal flows. Our snow cover ranges from 19 percent below normal to 52 percent above and the resulting forecasts also range from 16 percent below normal on the Colville River to 45 percent above normal on the Green River below Howard Hanson Dam. The last two weeks in January and the first two weeks in February were very dry and it appeared, when this report was prepared last month, that the water supply could very well deteriorate and serious water shortages occur. Since the middle of February, well above normal precipitation has occurred and this, together with the snow base that we had as of February 1, has given us this excellent snow pack. Another peculiarity about this snow is the very light densities being measured by the field crews. In contrast to the heavy densities of February 1, the snow pack is now similar to that which you might measure on January 1. In other words, densities in February were in the high thirties and low forties, while densities on March 1 were in the high twenties and low thirties. Of Course, subsequent precipitation and weather patterns could still change our water supply outlook, but with normal conditions, we can expect good water supplies during the runoff period of 1976.

SNOW COVER

The precipitation of late February has put down above normal amounts of snow during the last two weeks of February and the first of March. The current standing of snow cover ranges from 19 percent below normal on the Methow River to 24 percent above on the Chelan River; this in the Upper Columbia Basin. Along the Lower Columbia, the range is from 10 percent below normal for the Klickitat River to 18 percent above on Mill Creek, a tributary of the Walla Walla River. In the Puget Sound, the snow cover ranges from 11 percent below normal on the Green River to 52 percent above on the Nooksack River. The excellent snows measured last month in the Skagit and Baker Watersheds are even more improved. Only two basins in the Olympic Peninsula are sampled, with the Elwha, measured by only one snow course, indicating a snow pack that is 40 percent above normal. The Skokomish, measured by four snow courses, has a snow cover that is 15 percent below average.

RESERVOIRS

Although the irrigation and power reservoirs in the state are not full, they generally have more water in storage than has been measured for many years. Reservoir management indicates that they are currently making plans, or have already started, to release water from these reservoirs in order to hold the spring runoff. This is done in hopes that uncontrolled spillage will not occur during the runoff season. This task is taken very carefully, as the managers wish to maintain a full reservoir during the spill period and end up with a full reservoir at the end of the snow melt season.

PRECIPITATION

February rainfall, as measured by the National Weather Service, was above normal except in the northcentral portion of the state. Percentages for the Columbia River in Canada are 4 percent above average; the Pend Oreille-Spokane, 15 percent above; northcentral Washington, 10 percent greater than average; southeastern Washington, 29 percent greater; central Washington, 43 percent above; northwestern slopes of the Cascades, 19 percent greater and southwestern slopes of the Cascades, 20 percent greater. When the February rainfall is integrated in the November through February period, the precipitation in the Columbia Basin in Canada is 6 percent above normal; the Pend Oreille-Spokane, 3 percent below normal; the northeastern portion of the state, 15 percent below average; the southeastern portion, 13 percent below; central Washington has an average that is 28 percent greater than average; the northcentral portion 4 percent below. On the west side, northwestern slopes are 30 percent greater than average and the southwestern slopes 16 percent greater. In the Yakima Basin, the five precipitation stations at the reservoirs, indicate the rainfall to be 27 percent greater than average.

STREAMFLOW

During the month of February, there was a wide range of flows measured and reported by the United States Geological Survey. Lowest streamflows for the month were 28 percent below average for the Spokane River and the Green River below Howard Hanson Dam (these both adjusted for storage). The river that had the greatest outflow during the month was the Okanogan River, measured at Tonasket, 56 percent above average. This is not adjusted and the lowering of Okanogan Lake accounts for this well above normal streamflow. Flow of the Columbia River from Canada, as measured at International Boundary, was 1 percent below average and 6 percent below at The Dalles. Forecasts of streamflow, as previously stated, are for near normal flows. The Columbia River at Birchbank is expected to flow 1 percent above normal during the April-September period and at The Dalles, 8 percent above. The Okanogan River system is expected to have an outflow 15 and 18 percent above normal for the Similkameen at Nighthawk and Okanogan near Tonasket, respectively. The Methow at Pateros should have an April-September flow of 18 percent above normal. The Chelan, with its excellent snow pack, is expected to flow 21 percent greater than average. The Yakima River system is expected to have flows ranging from 10 percent above to 24 percent above for the combined flow of the Yakima near Parker. A marked improvement in forecasts occurred in the Lower Columbia River system, with the Lewis River at Ariel now expected to have an outflow 2 percent above average and the Cowlitz at Castle Rock, 8 percent above. The Dungeness near Sequim, based on one snow course, is now expected to have an outflow 21 percent above normal. The Green River system has the highest forecast, percentagewise. The March-September flow of the Green River is now expected to be 45 percent above average, or 560,000 acre feet. Numerical forecasts can be found on the following pages for these and other gaging stations in the state.

STREAMFLOW FORECASTS - MARCH 1976

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1975 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet: % 15-Yr. Avg.	Fore-cast period	1975	1974	1973	15-Yr Average 58-72
COLUMBIA BASIN							
COLUMBIA RIVER SYSTEM							
Columbia River	46800	101	Apr-Sept	41188	54227	34796	46410
at Birchbank 1/	38500	102	Apr-July	33033	44492	27876	37548
	28100	102	Apr-June	22534	31894	20203	27549
Columbia River	73000	106	Apr-Sept	66512	85139	45849	69020
at Grand Coulee 1/	62400	107	Apr-July	55890	73671	38193	58368
	48400	105	Apr-June	41354	57033	29886	46049
Columbia River	80000	106	Apr-Sept	74143	96939	49117	75290
bl Rock Island Dam 1/	67000	104	Apr-July	73212	84480	41200	64181
	53000	105	Apr-June	47192	65246	32032	50594
Columbia River	113000	108	Apr-Sept	109012	139724	65162	104600
at The Dalles, Or 1/	96000	107	Apr-July	94328	123570	54260	89875
	76000	104	Apr-June	73078	99282	43395	73143
PEND OREILLE RIVER SYSTEM							
Pend Oreille River							
bl. Box Canyon	17200	108	Apr-Sept	17559	21551	8311	15950
	15800	108	Apr-July	15872	20103	7614	14677
	13500	106	Apr-June	12587	16732	6756	12767
KETTLE RIVER SYSTEM							
Kettle River	2020	108	Apr-Sept	1921	2831	1121	1873
nr. Laurier	1940	108	Apr-July	1837	2752	1093	1794
	1740	106	Apr-June	1641	2476	1020	1640

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal % 15-Yr. Avg.	Streamflow in Thousands of Acre-Feet Fore-cast period	1975	1974	1973	15-Yr Average 58-72
KETTLE RIVER SYSTEM (Cont.)							
Colville River	125	84	Apr-Sept		286	54	148
at Kettle Falls	115	84	Apr-July		269	50	137
	110	86	Apr-June		252	48	128
SPOKANE RIVER SYSTEM*							
Spokane River	3350	112	Apr-Sept	3088	4801	1140	2982
at Post Falls, ID 2/	3200	110	Apr-July	2944	4682	1082	2899
	3000	108	Apr-June	2736	4409	1022	2773
OKANOGAN RIVER SYSTEM							
Similkameen River	1740	115	Apr-Sept	1409	2216	736	1516
nr. Nighthawk	1620	114	Apr-July	1315	2092	697	1424
	1430	117	Apr-June	1073	1710	621	1222
Okanogan River	2040	118	Apr-Sept	1584	2757	765	1723
nr. Tonasket	1860	117	Apr-July	1439	2534	707	1582
	1610	119	Apr-June	1178	2029	622	1349
METHOW RIVER SYSTEM							
Methow River							
nr. Pateros	1220	118	Apr-Sept		1665	512	1031
	1110	116	Apr-July		1555	476	963
	990	119	Apr-June		1268	417	832
CHELAN RIVER SYSTEM							
Chelan River	1510	121	Apr-Sept	1368	1749	777	1253
at Chelan 3/	1350	121	Apr-July	1216	1508	680	1112
	1090	124	Apr-June	856	1115	544	881
Stehekin River	1060	118	Apr-Sept		1223	541	904
at Stehekin	920	119	Apr-July		996	447	776
	730	122	Apr-June		717	352	600
Entiat	290	121	Apr-Sept		387	145	239
nr. Ardenvoir	268	122	Apr-July		347	131	220
	217	121	Apr-June		256	113	180

* Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.

2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast period	1975	1974	1973	15-Yr Average 58-72
			Seasonal Streamflow in Thousands of Acre-Feet				
WENATCHEE RIVER SYSTEM							
Wenatchee River	1540	117	Apr-Sept		1910	790	1312
at Plain	1420	120	Apr-July		1652	709	1187
	1150	120	Apr-June		1188	589	956
Wenatchee River	2080	116	Apr-Sept	2000	2556	1033	1786
at Peshastin	1950	120	Apr-July	1811	2232	938	1629
	1620	122	Apr-June	1332	1632	786	1324
Stemilt Basin nr Wenatchee	130	94	May-Sept				138*
YAKIMA RIVER SYSTEM							
Yakima River	156	110	Apr-Sept	169	231	83	142
nr. Martin 4/	142	108	Apr-July	155	214	76	131
	124	107	Apr-June	128	170	70	116
Yakima River	1060	110	Apr-Sept		1463	555	968
at Cle Elum 5/	970	111	Apr-July		1335	489	877
	860	113	Apr-June		1067	433	764
Yakima River	2150	124	Apr-Sept		3216	582	1730
nr. Parker 6/	2120	125	Apr-July		3092	590	1701
	1950	123	Apr-June		2601	598	1580
Kachess River	138	110	Apr-Sept	141	207	66	125
nr. Easton 7/	127	108	Apr-July	135	193	63	118
	114	107	Apr-June	112	156	59	106
Cle Elum River	532	112	Apr-Sept	545	745	285	477
nr. Roslyn 8/	490	112	Apr-July	497	664	255	437
	417	112	Apr-June	392	500	220	372
Bumping River	172	118	Apr-Sept	179	230	74	146
nr. Nile 9/	158	118	Apr-July	163	206	68	134
	135	120	Apr-June	119	152	61	112

* Thousands of Miners' inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

9/ Observed flow corrected for storage in Bumping Lake.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal % 15-Yr. Avg.	Streamflow in Thousands of Acre-Feet Fore-cast period	1975	1974	1973	15-Yr Average 58-72
YAKIMA RIVER SYSTEM (Cont.)							
American River	150	117	Apr-Sept		203	70	128
nr. Nile	140	118	Apr-July		181	65	118
	120	120	Apr-June		137	58	100
Tieton River	300	122	Apr-Sept	297	405	160	247
at Tieton Dam 10/	250	118	Apr-July	252	337	124	211
	200	116	Apr-June	187	255	99	172
Naches River	1060	119	Apr-Sept		1428	442	889
nr. Naches 11/	990	122	Apr-July		1286	385	810
	860	123	Apr-June		1038	336	698
Ahtanum Creek	58	120	Apr-Sept		83	21	48
nr. Tampico 12/	53	120	Apr-July		76	18	44
	48	123	Apr-June		64	16	39
LOWER COLUMBIA RIVER SYSTEM							
Mill Creek							
nr. Walla Walla	33	122	Apr-Sept		57	17	27
	29	121	Apr-July		51	13	24
	26	124	Apr-June		47	11	21
Lewis River	1360	102	Apr-Sept	1196	1951	800	1341
at Ariel 13/	1200	104	Apr-July	1028	1760	666	1151
	1070	104	Apr-June	891	1489	574	1028
Cowlitz River	2380	113	Apr-Sept		3323	1252	2101
Blw. Mayfield Dam	2070	112	Apr-July		2975	1068	1846
	1760	111	Apr-June		2416	904	1578
Cowlitz River	2990	108	Apr-Sept	2652	4128	1676	2773
at Castle Rock 14/	2580	107	Apr-July	2279	3694	1419	2416
	2250	108	Apr-June	1817	3029	1212	2083

10/ Observed flow corrected for storage in Rimrock Lake.
11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.
12/ Observed flow of North and South Forks (Combined).
13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.
14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal % 15-Yr. Avg.	Fore-cast period	1975	1974	1973	15-Yr Average 58-72
			Seasonal Streamflow in Thousands of Acre-Feet				
OLYMPIC PENINSULA							
DUNGENESS RIVER SYSTEM							
Dungeness River nr. Sequim	200	121	Apr-Sept		205	120	165
	165	120	Apr-July		162	98	137
	125	120	Apr-June		111	74	104
PUGET SOUND							
SKAGIT RIVER SYSTEM							
Skagit River at Newhalem 15/	3120	129	Mar-Aug	2770	3169	1610	2418
GREEN RIVER SYSTEM							
Green River blw. Howard Hanson Dam 16/	560	145	Mar-Sept		573	210	386
CEDAR RIVER SYSTEM							
Cedar River nr. Cedar Falls	120	131	Apr-Sept		145	53	91

15/ Observed flow corrected for storage in Diablo, Ross and Gorge Reservoirs.
16/ Observed flow corrected for storage in Howard Hanson Dam

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about March 1, 1976 as percent of the same date in 1975 and 1974 and average of record.

Tributary Basin	No. of Courses Average	Snow Water Expressed as percent of 1975	1974	1958-72 Avg.
		UPPER COLUMBIA BASIN		
Pend Oreille	14	80	71	88
Kettle	17	82	84	100
Colville	5	58	93	86
Spokane	9	93	70	107
Okanogan	40	82	72	103
Methow	9	74	51	81
Chelan	7	98	90	124
Entiat	10	103	95	110
Wenatchee	9	84	78	110
Yakima	25	77	65	101
Ahtanum	2	64	67	82
		LOWER COLUMBIA		
Asotin Creek	1	94	73	106
Mill Creek	3	92	56	118
Klickitat	1	56	57	90
White Salmon	2	100	74	104
Lewis	18	136	93	116
Cowlitz	10	95	75	106
		PUGET SOUND		
Nisqually	4	82	72	111
White	2	79	77	104
Green	8	51	94	89
Cedar	6	66	54	120
Snoqualmie	4	96	90	132
Skykomish	3	94	67	109
Skagit	13	101	86	129
Baker	10	122	87	146
Nooksack	4	107	86	152
		OLYMPIC PENINSULA		
Skokomish	4	82	54	85
Morse Creek	1	127	82	-
Elwha	1	151	92	140

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE 1/ CAPACITY	Measured (March) 1976	1975	1974	Normal*
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	130.0	58.9	127.9	162.4
Columbia	Franklin D. Roosevelt Lake	5232.0	3370.7	4304.9	-1175.4	2843.8
Columbia	Banks Lake	761.8	714.9	706.9	720.3	588.3
Okanogan	Conconully Reservoir	13.0	10.7	11.2	6.4	11.6
Okanogan	Salmon Lake	10.5	9.8	9.2	7.3	7.4
Chelan	Lake Chelan	676.1	463.0	155.1	228.5	234.9
		YAKIMA				
Yakima	Keechelus Lake	157.8	124.1	95.4	99.4	105.5
Kachess	Kachess Lake	239.0	204.0	153.6	107.9	183.6
Cle Elum	Lake Cle Elum	436.9	327.0	267.4	195.7	264.5
Bumping	Bumping Lake	33.7	8.5	2.8	4.7	10.2
Tieton	Rimrock Lake	198.0	148.0	121.6	132.1	128.2
		PUGET SOUND				
Skagit	Ross Reservoir	1404.1	1128.6	782.4	1030.4	873.9
Skagit	Diablo Reservoir	90.6	87.5	86.9	86.4	85.0
Skagit	Gorge Reservoir	9.8	8.2	8.8	8.2	--

1/ Based on Active Storage

* 15-year Average 1958-72

SOIL MOISTURE - MARCH

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of March 1 1976	1975	1974
OKANOGAN							
Salmon Meadows	19A2M	4500	48	5.4	3.6	2.0	3.7
Trout Creek	3-M	3600	48	7.3	-	3.2	3.8
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	4.9
Lake Cle Elum	21B14M	2200	48	12.8	-	-	9.3
WALLA WALLA							
Couse	17C3m	3650	48	11.1	Late	9.3	10.3
Helmers	17C2M	4400	48	12.0	Late	10.8	10.1
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	11.4	8.6	11.1

FALL SOIL MOISTURE

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of Oct. 1 1975	1974	1973
OKANOGAN							
Salmon Meadows	19A02M	4500	48	5.4	3.2	1.8	2.6
Trout Creek	3-M	3600	48	7.3	3.1	3.0	2.8
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	2.6
Lake Cle Elum	21B14M	2200	48	12.8	-	-	6.1
WALLA WALLA							
Couse	17C3m	3650	48	11.1	7.3	-	5.6
Helmers	17C2M	4400	48	12.0	6.5	-	7.6
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	8.6	5.4	6.0

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL Sept-Oct Observed	FALL 1975 2/ Departure	WINTER Nov. 1975 - Feb. 1976 2/ Observed	WINTER Departure
Columbia in Canada	3.51	+ 0.96	11.85	+ 0.64
Pend Oreille - Spokane	4.27	- 0.21	15.52	- 0.49
Northeastern Washington	2.29	- 0.49	8.13	- 1.43
Southeastern Washington	2.94	- 0.29	9.78	- 1.44
Central Washington	5.47	+ 0.72	30.93	+ 6.73
North Central Washington	1.22	- 0.40	5.68	- 0.23
Northwest Slope Cascades	15.42	+ 2.73	57.85	+13.44
Southwest Slope Cascades	8.34	- 0.34	41.01	+ 5.53

Northeastern Washington - Lower Spokane, Colville, Sanpoil and Lower Kettle Drainages.

Southeastern Washington - Touchet, Tucannon and Palouse Drainages.

Central Washington - Yakima, Wenatchee and Chelan Drainages.

Northwest Slope Cascades - Puget Sound Drainages.

Southwest Slope Cascades - Lower Columbia Drainages.

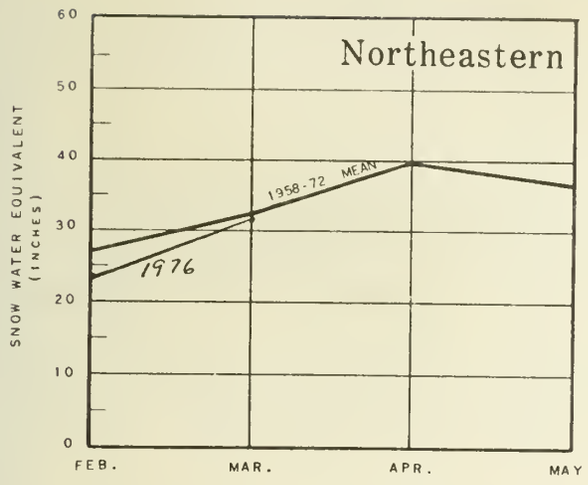
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

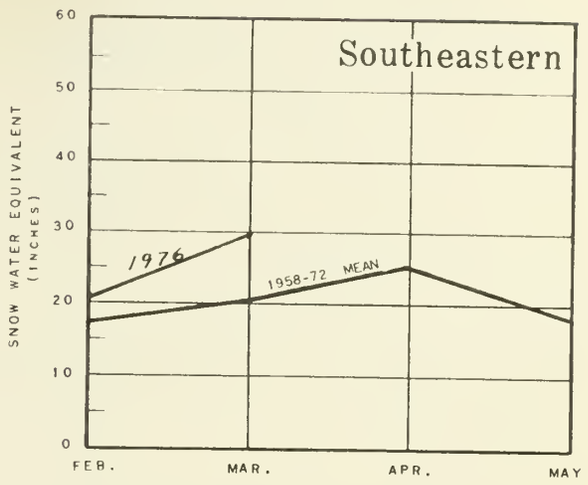
2/ - Departure from 15-year (1958-72) drainage division average.

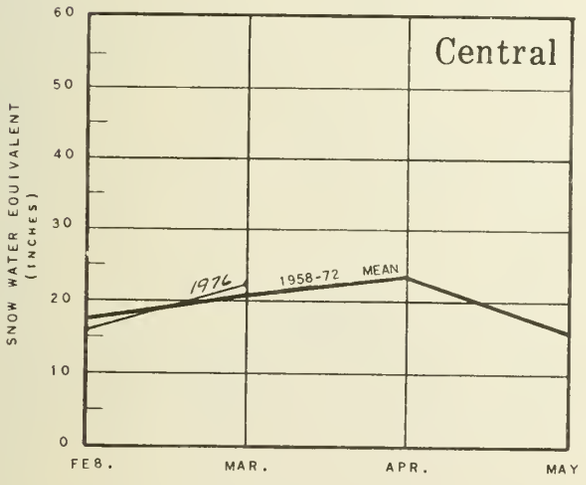
WASHINGTON SNOW COVER

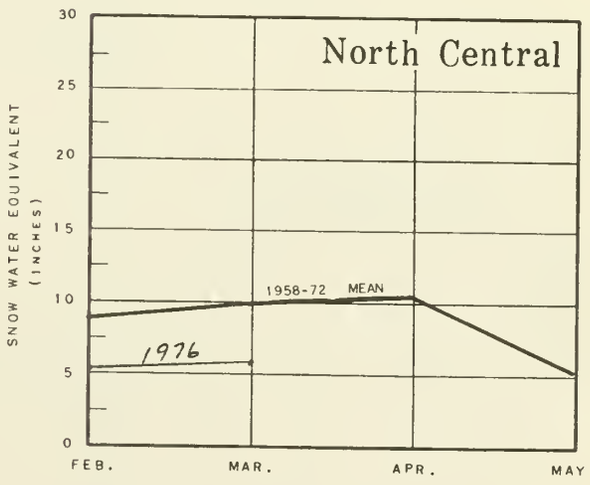
1976

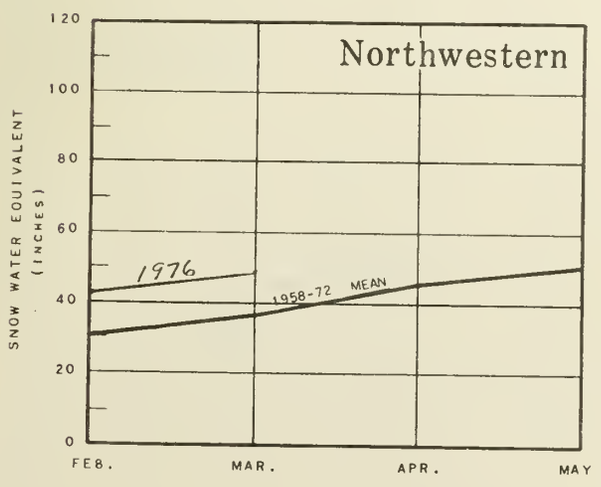
DRAINAGE AREAS

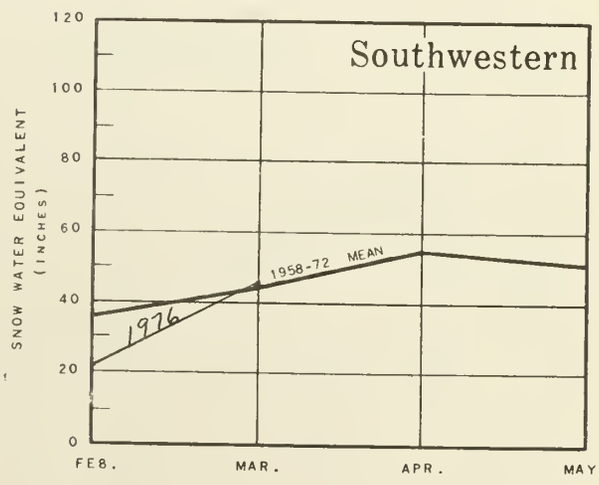










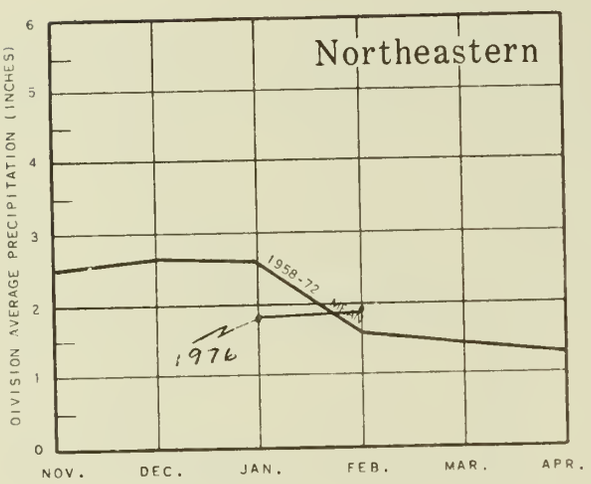


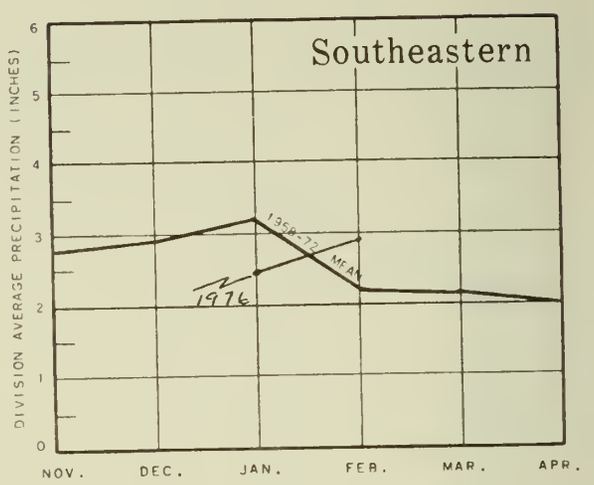
Selected Snow Survey Courses by Soil Conservation Service

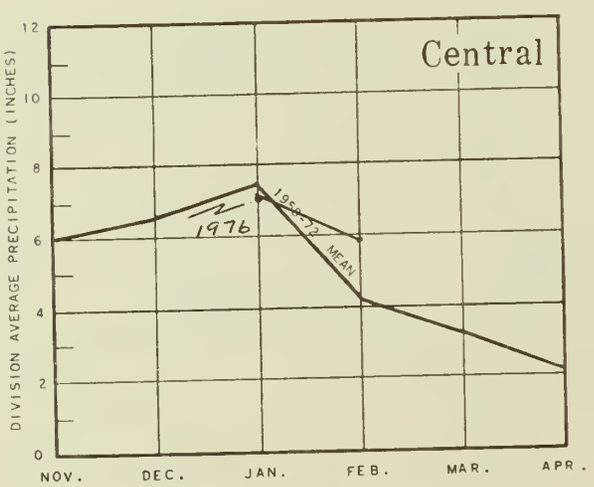
WASHINGTON VALLEY PRECIPITATION

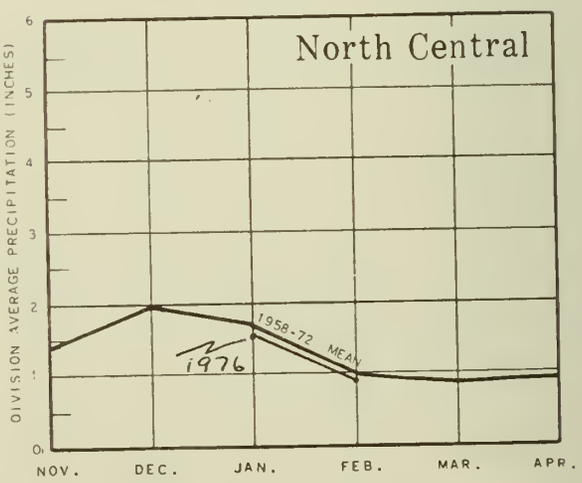
1976

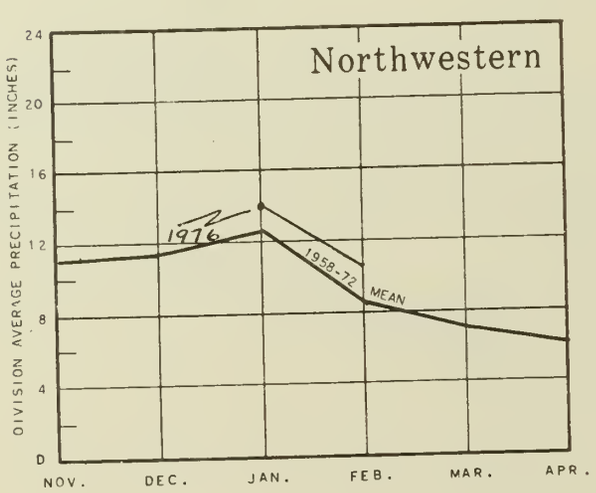
DRAINAGE AREAS

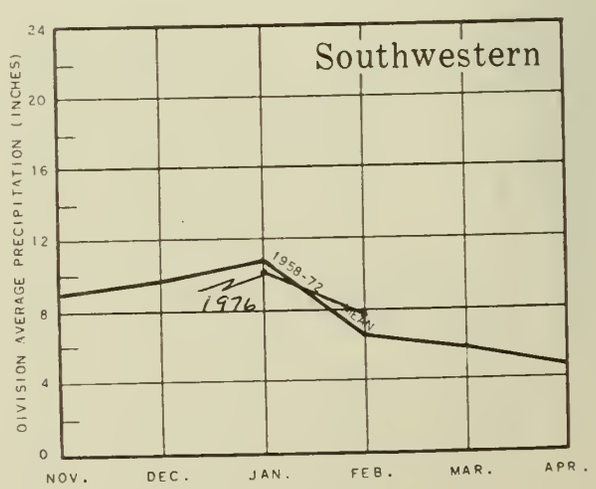






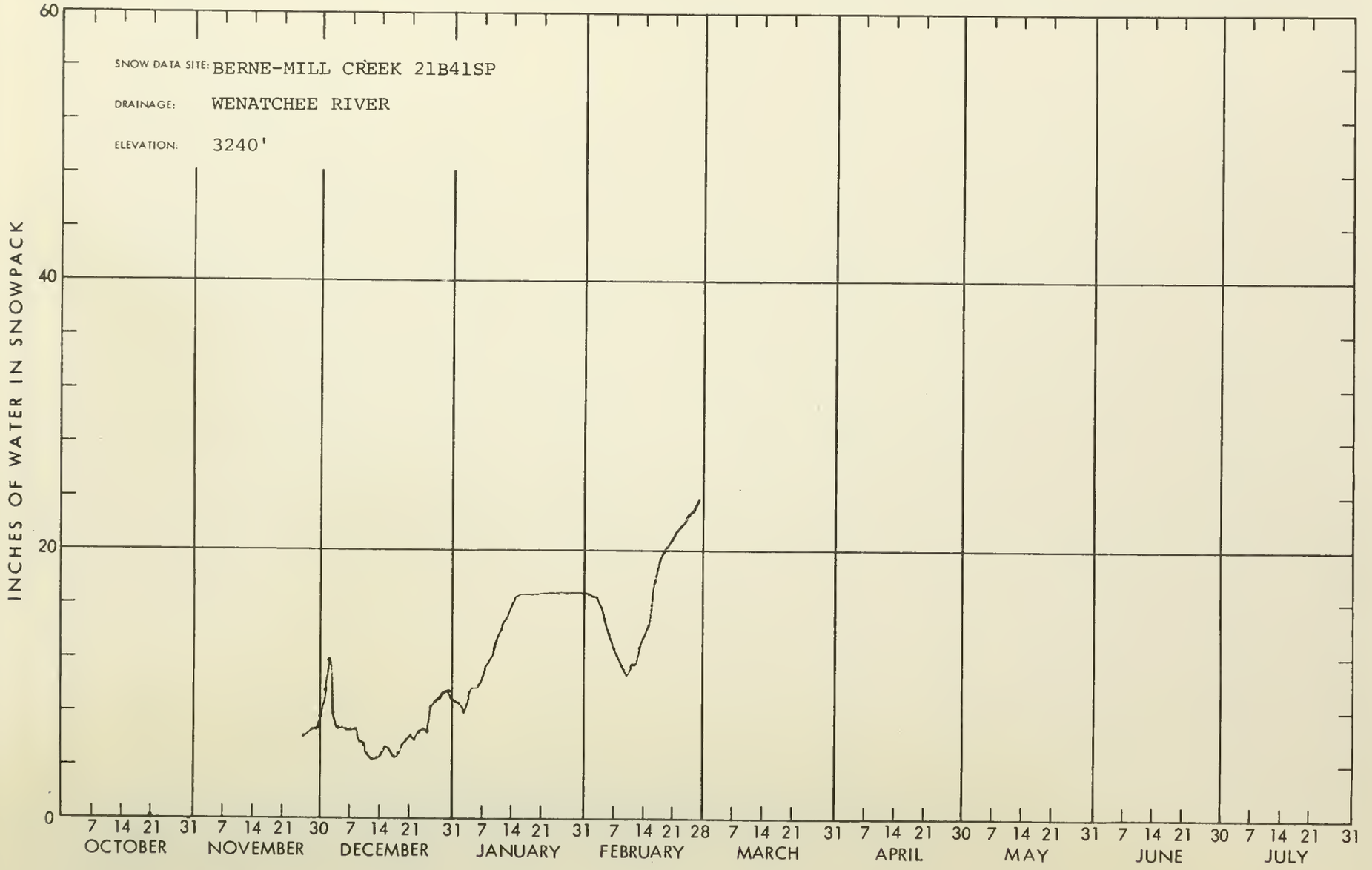






Preliminary Analysis by National Weather Service

WSFB-X13C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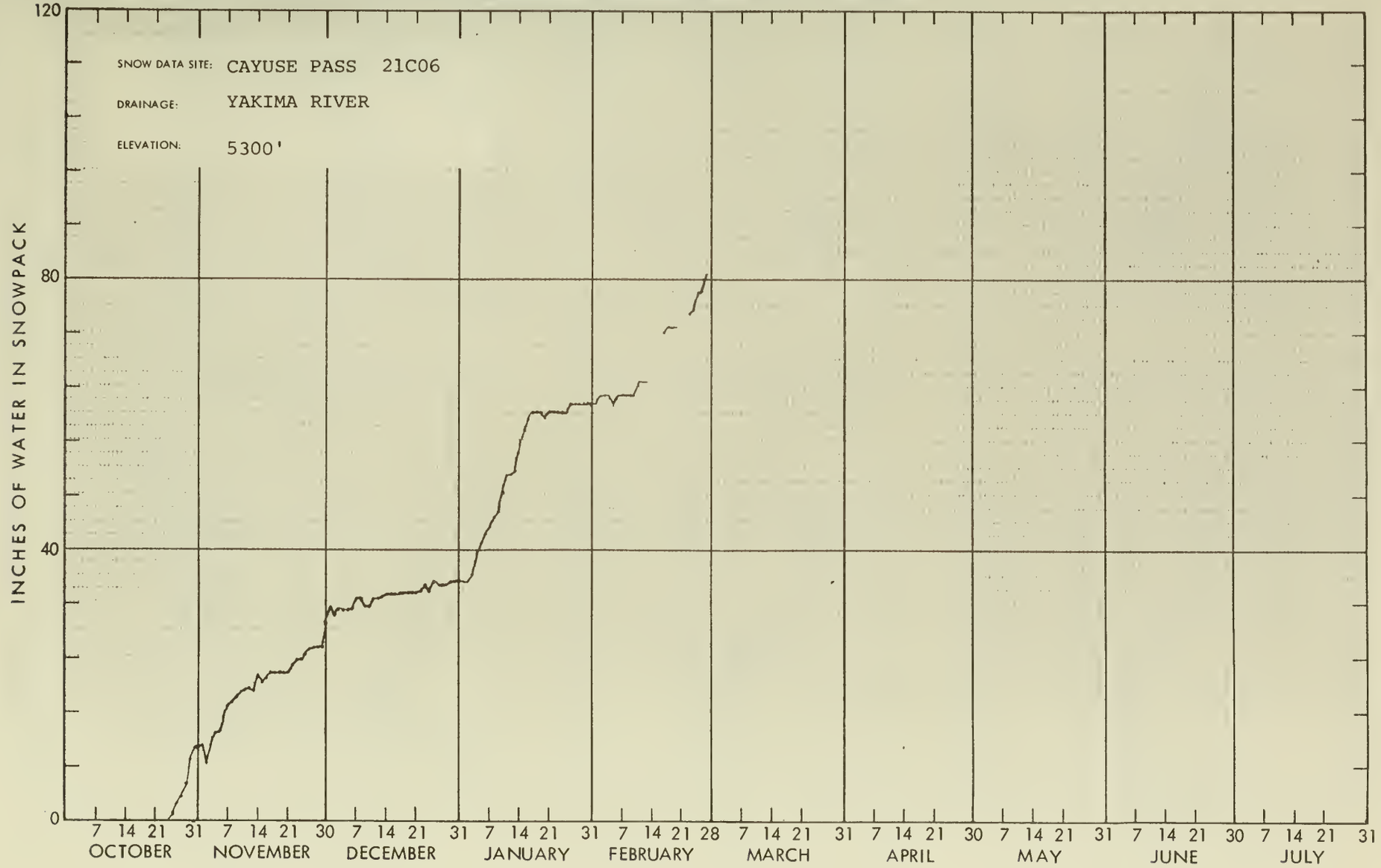
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

WSFB-X13D

"LANDSAT" Relay from U.S.G.S., Tacoma



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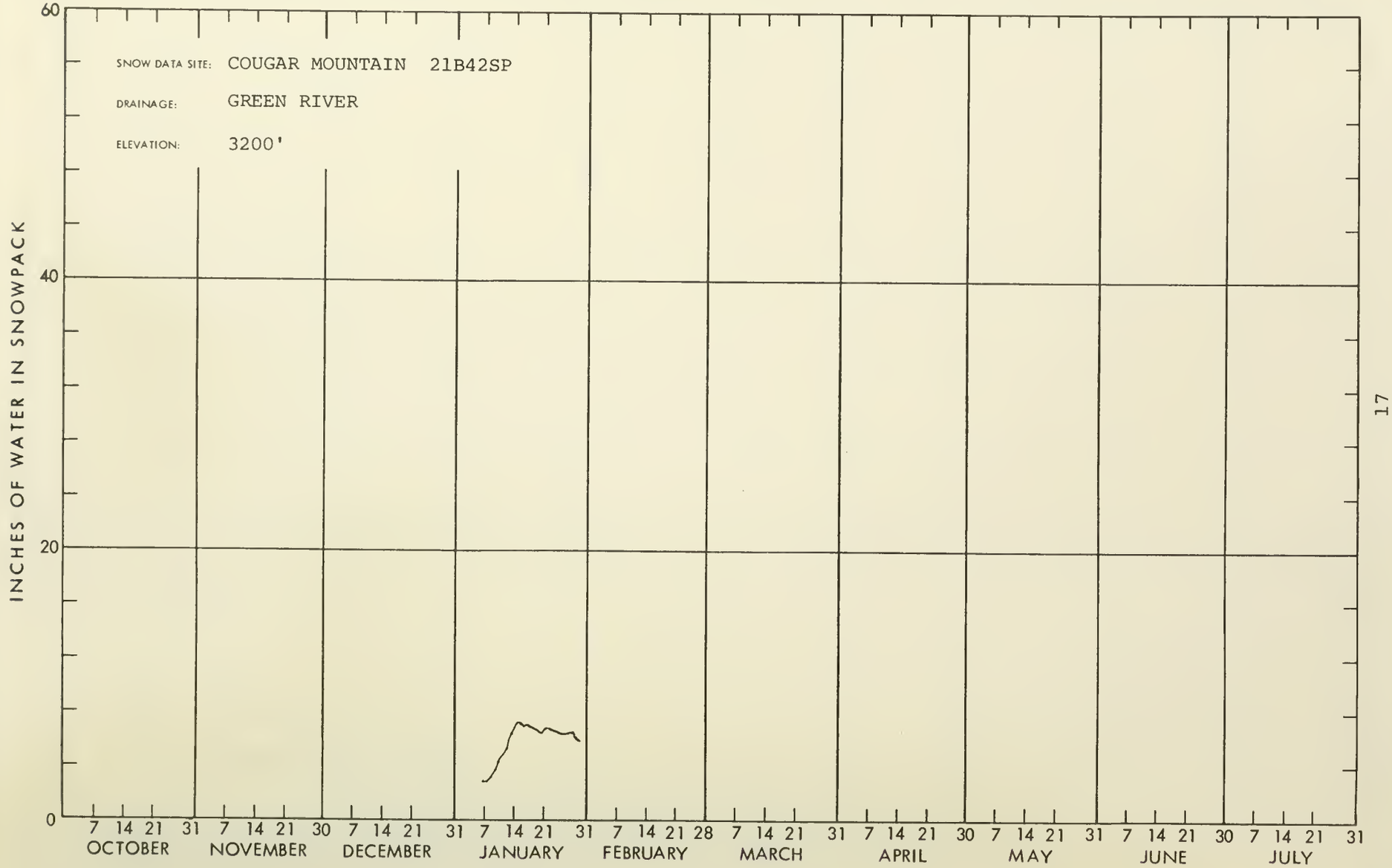
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DRAINAGE: GREEN RIVER
ELEVATION: 3200'
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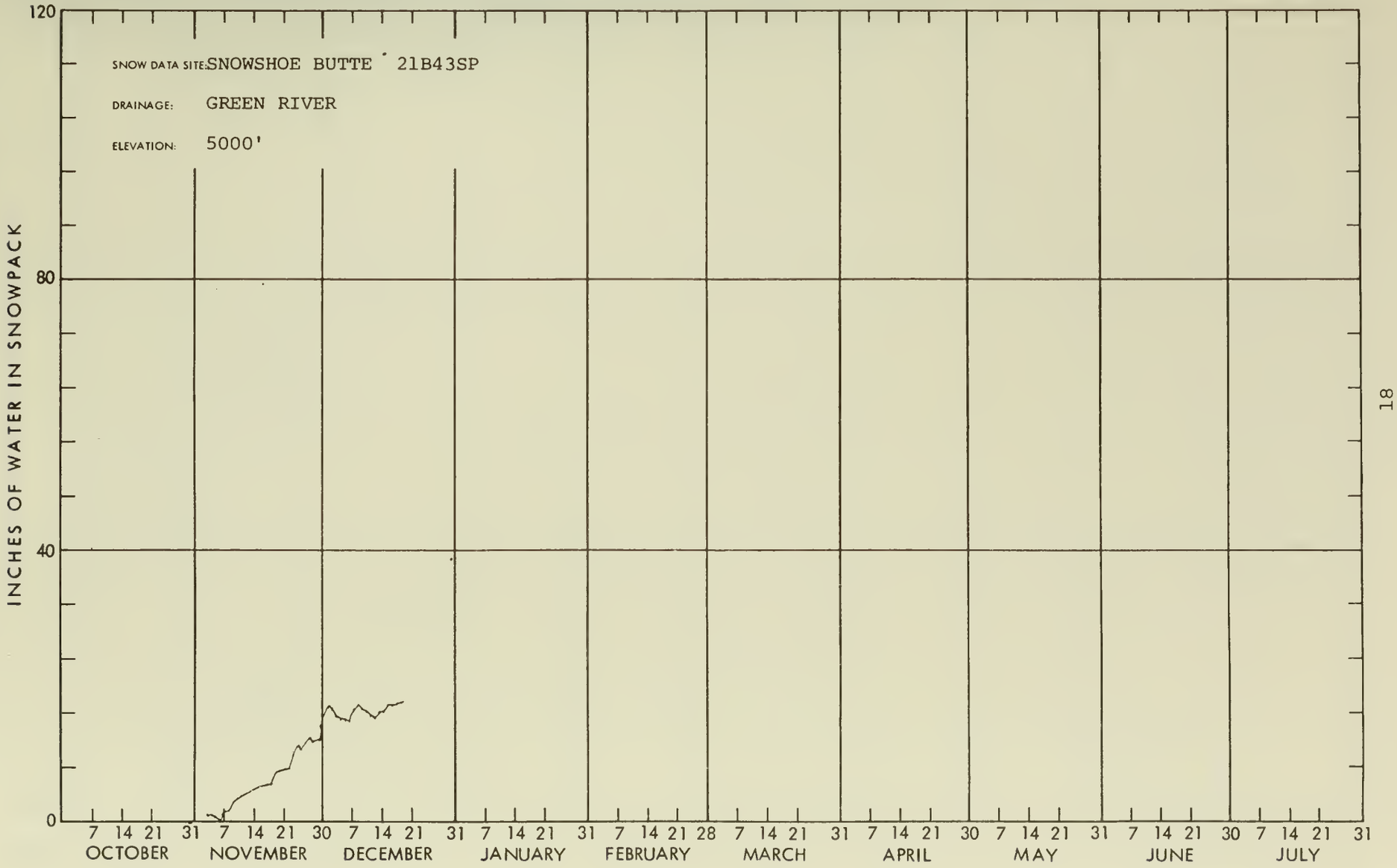
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

WSFB-X13D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OCTOBER
NOVEMBER
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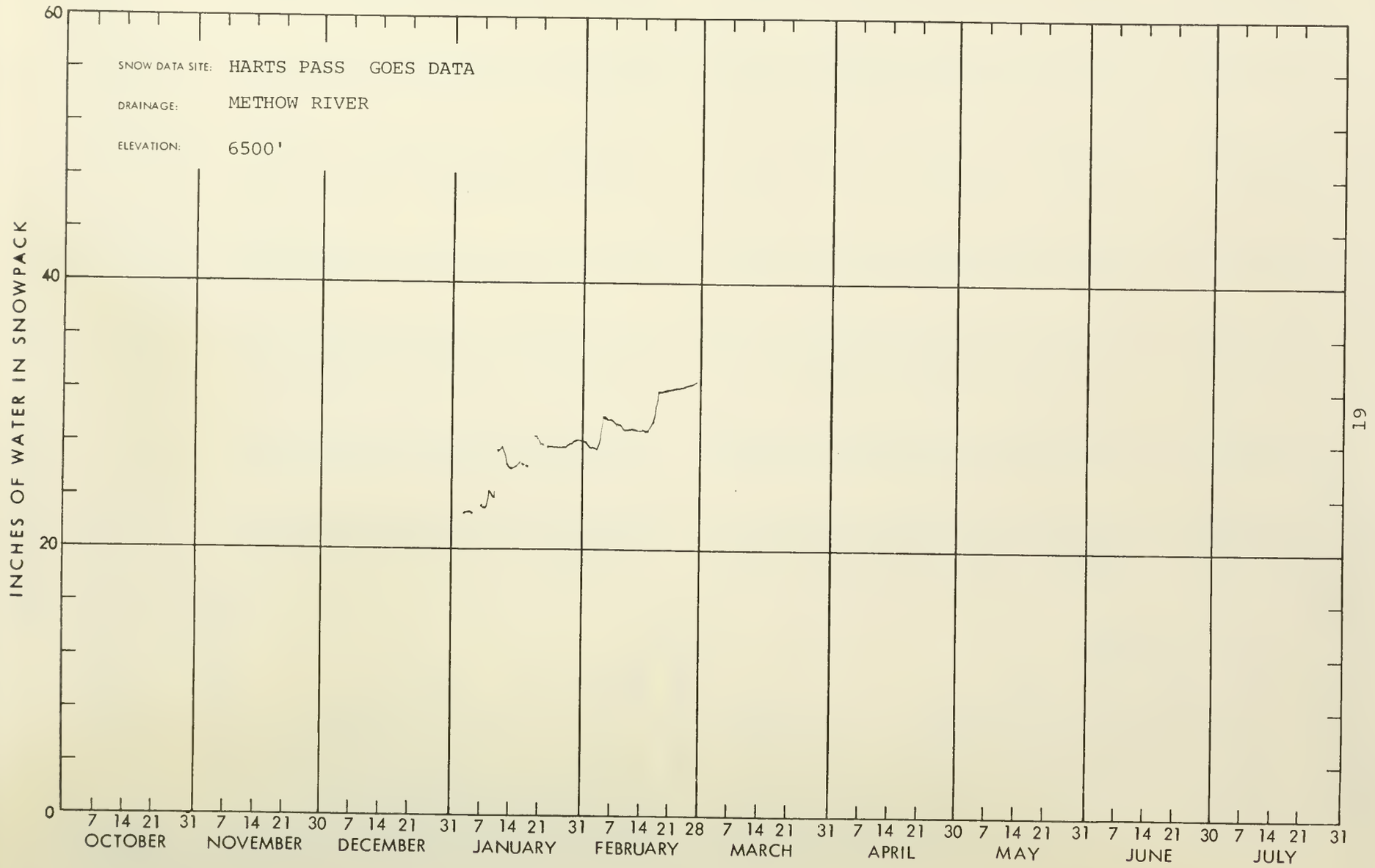
WSFB-X13C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DRAINAGE: METHOW RIVER
ELEVATION: 6500'
INCHES OF WATER IN SNOWPACK
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40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY
19

SNOW DATA TO MARCH 1, 1976 - APPENDIX 1

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average +#
UPPER COLUMBIA DRAINAGE							
PEND OREILLE RIVER							
Baree Creek	15B11	5500	3/3	142	53.3	50.3	43.6
Baree Midway	15B16	4600	3/3	118	37.3	38.5	34.6
Baree Trail	15B15	3800	3/2	42	9.4	13.3	10.5
Benton Meadow	16A02	2344	2/24	18	4.6	8.6	6.1
Benton Spring	16A03	4900	2/23	38	11.2	21.4	17.4
Boyer Mountain	17A02	5250	2/26	70	17.8	28.0	23.7
Brush Creek Timber	14A13	5000	2/26	34	8.7	10.8	10.2
Chewelah	17A04	4923	2/28	47	11.6	18.2	16.2
Heart Lake Trail	14C10	4800	3/2	83	22.3	24.9	21.2
Hoodoo Basin	15C10	6000	3/2	152	48.6	46.9	46.1
Hoodoo Creek	15C01	5900	3/2	143	45.5	43.5	43.2
Lookout	15B02	5250	2/24	102	31.2	30.4	32.7
Mosquito Ridge	16A04A	5100	3/2	107	33.8	36.0	34.7
Nelson	19-Can	3050	2/26	53	11.6	17.7	14.5*
Schweitzer Bowl	16A06	4500	3/2	77	20.8	45.6	27.8
Schweitzer Ridge	16A05	6100	3/2	118	40.0	60.2	39.9
Winchester Creek	17A03	2970	2/26	32	7.7	12.2	12.1
KETTLE RIVER							
Barnes Creek	90-Can	5300	2/28	68	18.9	20.0	18.0
Big White Mtn.	154-Can	5500	2/25	62	21.4	21.1	16.9*
Boulder Road	18A02	1450	2/26	16	4.6	7.0	4.9
Butte Creek	18A03	4070	2/26	30	7.2	10.9	9.3
Cabin Creek	18A08	3170	2/26	29	6.8	5.2	8.2
Carmi	126-Can	4100	2/25	25	8.0	10.8	6.1*
Farron # 1	17-Can	4000	2/26	45	11.5	14.1	12.4*
Farron # 2	243-Can	4000	2/26	44	10.9	13.8	New
Goat Creek	18A04	3595	2/26	23	5.3	8.9	7.1
Graystoke Lake	5-Can	5950	2/27	51	15.0	17.2	18.7*
Monashee Pass	48A-Can	4500	2/28	50	13.8	14.6	12.7*
Old Glory Mtn.	42-Can	7000	2/29	93	28.7	35.4	24.6*
Snow Caps Creek	18A05	2150	2/26	19	4.4	6.0	5.1
Snow Caps Trail	18A06	2720	2/26	24	5.3	6.6	6.7
Summit G. S.	18A07	4600	2/26	24	5.7	9.6	7.4
Trapping Creek Lower	166-Can	3050	2/25	25	7.0	8.8	5.1*
Trapping Creek Upper	165-Can	4450	2/25	39	11.6	13.2	8.9*
COLVILLE RIVER							
Baird	17A06	3215	2/28	28	6.1	10.2	7.1
Carlson	18A09	2885	2/29	19	4.9	9.6	4.6
Chewelah	17A04	4925	2/28	47	11.6	18.2	16.2
Stranger Mountain	17A05	4990	2/29	38	8.2	14.8	13.1
Togo	18A10	3370	2/29	42	10.9	17.6	10.9

Average based on 1958-72 average

* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1976 - APPENDIX 2

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
SPOKANE RIVER							
Above Burke	15B08	4100	2/24	80	22.6	25.9	-
Copper Ridge	16B02	4800	2/26	71	25.3	28.7	25.7
Forty-nine Meadows	15B03	5000		Late Report		25.8	-
Fourth of July Summit	16B03	3100	2/27	39	11.4	14.4	7.3
Granite Peak	15B13A	6000		Late Report		34.4	37.7
Kellogg Peak	16B05A	5560		Not Measured		29.8	-
Lookout	15B02	5250	2/24	102	31.2	30.4	32.7
Lost Lake	15B14A	6000		Late Report		45.6	51.3
Lower Sands Creek	16B01	3400	2/26	59	17.8	18.5	17.5
Medicine Ridge	15B04A	6150		Late Report		35.8	38.5
Mosquito Ridge	16A04A	5110	3/2	107	33.8	36.0	34.7
Roland Summit	15B05A	5200	3/2	102	31.6	31.0	31.3
Sherwin	16C01	3200	2/26	59	15.8	19.2	13.8
Sunset	15B09A	5600	3/2	131	32.7	30.7	33.7
OKANOGAN RIVER							
Aberdeen Lake	6A-Can	4300	3/1	28	6.9	9.1	5.9*
Blackwall Mountain	100-Can	6250	3/2	118	43.4	31.3	32.4*
Bouleau Creek	31-Can	5000	2/28	39	10.7	17.2	10.5*
Bouleau Lake	234-Can	4580	2/28	58	13.2	17.0	13.3*
Branda Mine	193-Can	4800	2/26	48	14.5	17.7	12.8*
Brookmere	27-Can	3200	2/27	31	7.3	9.2	9.0*
Carrs Landing Upper	168-Can	3200	2/29	21	5.4	7.1	4.5*
Clark +	19A08a	7000	3/1	Not measured		21.8	19.7
Enderby	130-Can	6250	2/27	115	41.0	39.0	32.4*
Esperon Creek Lower	164-Can	4400	2/29	41	11.1	15.9	10.9*
Esperon Creek Middle	163-Can	4700	2/29	51	13.8	18.7	13.5*
Esperon Creek Upper	162-Can	5400	2/29	56	16.5	22.8	16.5*
Freezeout Meadows New	20A38	5000	2/25	101	34.3	37.8	25.7
Graystoke Lake	5-Can	5950	2/27	51	15.0	17.2	18.7*
Hamilton Hill	107-Can	4900	2/26	66	20.0	17.6	14.2*
Harts Pass	20A05A	6500	2/23	138	49.1	46.1	38.8
Horseshoe Basin +	19A05a	7000	3/1	Not Measured		15.2	11.6
Isintok Lake	152-Can	5510	2/29	32	8.5	10.8	7.5*
Lost Horse Mountain	105-Can	6300	3/1	38	10.4	10.4	8.5*
Loup Loup	19A07	4650	2/25	21	5.5	10.1	9.5
McCulloch	4-Can	4200	2/27	32	7.4	9.8	6.2*
Missezula Mountain	106-Can	5100	2/25	38	9.6	13.1	8.8*
Mission Creek	5A-Can	6000	2/27	63	19.1	21.7	17.3*
Monashee Pass	48A-Can	4500	2/28	50	13.8	14.6	12.7*
Mount Kobau	156-Can	5950	3/1	36	9.2	11.2	11.8*
Muckamuck +	19A09a	6390	3/1	50	15.0	15.6	15.1

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO MARCH 1, 1976 - APPENDIX 3

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE						Water Content (inches)	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average #
OKANOGAN RIVER (Cont.)							
Mutton Creek No. 1	19A01	5700	2/26	29	7.6	13.8	12.9
Mutton Creek No. 2	19A04	6000	2/26	37	9.7	12.7	13.3
Mutton Creek No. 2 SP	19A11SP	6000	2/26	-	6.6	9.5	New
New Copper Mountain	46A-Can	4300	2/27	26	4.9	6.5	5.8*
New Penticton Res. #2	183-Can	5225	3/1	33	9.1	12.0	7.6*
Nickel Plate Mtn.	47-Can	6200	3/1	33	9.4	9.1	7.1*
Oyama Lake	203-Can	4400	3/1	Not Measured		9.5	6.3*
Paysayten +	20A28a	4300	3/1	65	20.2	20.8	15.4
Postill Lake	55-Can	4500	2/28	30	8.2	10.8	7.4*
Quartette Lake	34-Can	4000	2/27	61	10.9	10.1	-
Rusty Creek	19A03	4000	2/25	15	3.9	8.0	7.1
Salmon Meadows	19A02	4500	2/26	25	6.1	9.7	9.9
Silver Star Mountain	99-Can	6050	2/29	89	31.5	31.8	23.8*
Starvation Mtn +	19A10a	6750	3/1	54	16.2	17.7	18.3
Summerland Reservoir	3A-Can	4200	2/28	38	10.2	14.6	8.7*
Touts Coulee	19A06	2845	2/26	16	2.9	3.0	4.0
Trout Creek	3-Can	4700	2/27	36	8.6	11.2	6.4*
Vaseux Creek	233-Can	4600	2/28	28	5.9	6.8	7.2*
White Rocks Mountain	70-Can	6000	2/25	65	22.9	31.0	18.9*
ENTIAT RIVER							
Blue Creek G. S.	20B28a	5425	3/2	120	39.5	44.4	New
Brief	20B19	1600	2/25	27	9.4	8.4	7.5
Entiat Meadows +	20A33a	4800	3/1	Not Measured		51.1	45.7
Entiat River Trail +	20A34a	3150	3/2	94	26.4	27.1	21.8
Four Mile Ridge +	20B27a	7000	3/2	132	43.4	34.0	-
Fox Camp +	20A36a	6510	3/2	184	60.5	54.0	54.6
Pope Ridge	20B20	4300	2/26	65	18.2	23.0	16.5
Pugh Ridge +	20A32a	6400	3/2	113	37.2	35.9	34.5
Shady Pass	20A37	6200	2/25	104	34.2	33.0	-
Snow Brushy +	20A35a	3850	3/2	127	35.7	34.7	37.7
Tommy Creek +	20B21a	5300	3/2	88	29.0	28.1	28.3
METHOW RIVER							
Billy Goat Pass +	20A10a	6409	3/1	93	28.8	29.7	25.8
Dollar Watch +	20A29a	7000	3/1	91	27.3	27.7	25.8
Harts Pass	20A05A	6500	2/23	138	49.1	46.1	38.8
Horseshoe Basin +	19A05a	7000	3/1	Not Measured		15.2	11.6
Loup Loup	19A07	4650	2/25	21	5.5	10.1	9.5
Mutton Creek No. 1	19A01	5700	2/26	29	7.6	13.8	12.9
Mutton Creek No. 2	19A04	6000	2/26	37	9.7	12.7	13.3
Mutton Creek No. 2 SP	19A11SP	6000	2/26	-	6.6	9.5	New
Rusty Creek	19A03	4000	2/25	15	3.9	8.0	7.1
Salmon Meadows	19A02	4500	2/26	25	6.1	9.7	9.9
War Creek Pass +	20A31a	6500	3/1	Not Measured		43.6	40.5

\# Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation
* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1976 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR: Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	Average #
CHELAN LAKE BASIN							
Cloudy Pass +	20A22a	6500	3/1	146	45.3	44.8	37.4
Greenwood Flat +	20A25a	3540	3/1	Not Measured		28.4	22.9
Little Meadows +	20A24a	5275	3/1	151	46.8	44.4	39.9
Lyman Lake	20A23A	5900	3/1	208	64.5	-	52.5
Park Creek Flat +	20A13a	2220	3/1	Not Measured		-	31.4
Park Creek Ridge	20A12A	4600	3/1	178	55.2	56.0	41.9
Petersons +	20A16a	3730	3/1	135	41.8	48.3	32.9
Rainy Pass	20A09	4780	2/23	138	45.4	42.6	36.0
Safety Harbor	20A30A	6300	3/1	102	30.6	33.6	25.7
War Creek Pass +	20A31a	6500	3/1	Not Measured		43.6	40.5
WENATCHEE RIVER							
Berne-Mill Creek	21B23	2925	2/13	64	21.2	33.2	23.9
			2/27	94	26.8	35.5	24.7
Berne-Mill Creek New SP	21B41SP	3240	2/27	71	21.8	30.4	21.0
Blewett Pass No. 2	20B02	4270	2/26	50	13.9	19.3	14.9
Chiwaukum G. S.	20B16	1810	2/13	35	8.7	11.6	11.2
			2/26	49	13.1	11.0	11.6
Fish Lake	21B04	3371	3/1	Not Measured		38.4	31.3
Lake Wenatchee	20B05	1970	2/13	44	13.6	15.9	13.6
			2/26	59	17.9	17.1	13.9
Leavenworth R. S.	20B17	1127	2/12	7.6	2.6	7.0	5.7
			2/26	9.0	3.6	7.1	4.2
Lyman Lake	20A23A	5900	3/1	208	64.5	-	52.5
Merritt	20B18	2140	2/13	37	12.6	20.8	15.5
			2/26	53	16.4	21.3	15.2
Stevens Pass	21B01	4070	2/13	110	43.3	54.6	42.5
			2/26	152	54.8	60.4	45.7
Stevens Pass Sand Shed	21B45	3700	2/13	74	29.0	37.5	-
			2/26	112	37.0	39.8	-
SQUILCHUCK CREEK							
Beehive Springs	20B03	4400	2/27	11	3.1	11.6	7.9
Scout-A-Vista	20B04	3400	2/27	20	5.8	11.7	8.1
STEMILT CREEK							
Jump-Off	20B08	4450	2/25	21	5.6	11.2	8.3
Stemilt Slide	20B06	5000	2/27	44	11.4	16.4	15.1
Upper Wheeler	20B07	4400	2/27	22	5.4	13.9	10.1
COLOCKUM CREEK							
Colockum Creek Upper	20B22	5300	2/25	14	3.8	15.8	-
Colockum Creek Lower	20B23	4300	2/25	21	5.0	12.5	-
Trough # 2	20B25SP	5310	2/25	23	7.0	-	New

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1976 - APPENDIX 5

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average #
YAKIMA RIVER							
Ahtanum R. S.	21C11	3100	2/24	14	3.4	12.8	6.7
Big Boulder Creek	21B09	3200	2/24	66	18.0	25.3	18.5
Blewett Pass No. 2	20B02	4270	2/26	50	13.9	19.3	14.9
Bumping Lake	21C08	3450	2/13	30	9.1	18.0	15.2
			2/29	71	15.9	17.9	15.3
Bumping Lake New	21C36	3400	2/13	43	13.5	22.1	19.6
			2/26	78	20.3	25.1	20.0
Cayuse Pass	21C06	5300	2/25	216	76.2	83.1	70.4
Colockum Pass	20B09	5370	2/25	43	13.6	17.1	14.5
Cooke Creek	20B10	4123	2/25	10	2.1	10.3	6.1
Corral Pass	21B13	6000	3/1	Not Measured		48.0	34.3
Fish Lake	21B04	3371	3/1	Not Measured		38.4	31.3
Green Lake	21C10	6000	2/25	110	33.3	33.0	29.1
Grouse Camp	20B11	5385	2/24	44	13.4	17.6	15.3
High Creek	20B12	2930	2/24	24	6.9	7.4	5.2
Joe Lake	21B46a	4624	3/1	225	63.0	58.6	-
Lake Cle Elum	21B14M	2200	2/13	24	9.2	13.1	8.2
			3/1	48	13.4	13.2	8.1
Lemah Creek +	21B47a	3327	3/1	141	39.5	42.6	-
Manashtash	20C01	3935	2/26	14	3.2	8.0	4.3
Morse Lake	21C17	5400	3/4	149	47.4	71.0	47.7
Nanum	21B13	2340	2/24	31	8.8	11.5	9.6
Olallie Meadows	21B02	3625	3/2	156	67.5	52.6	40.6
Satus Pass	20D01	4030	2/27	34	7.8	14.0	8.7
Stampede Pass SP	21B10	3860	2/15	Not Measured		55.4	34.2
			2/25	-	37.4	61.2	36.2
Trail Creek	20B14	3360	2/24	8.6	2.4	5.8	2.2
Tunnel Avenue	21B08	2450	2/12	46	16.0	28.8	20.1
			2/26	79	22.7	32.2	21.2
Van Epps Pass +	20B26a	5925	3/1	152	42.6	48.0	-
Walters Flat	20B15	3360	2/24	22	7.1	9.9	6.9
Waptus Lake +	21B49a	3024	3/1	141	39.5	43.6	-
White Pass (E. Side)	21C28	4500	2/17	64	17.1	24.9	20.8
			3/1	89	24.4	27.3	22.0
White Pass (L. Lake)	21C27	4500	2/25	89	22.7	32.9	26.1
AHTANUM CREEK							
Ahtanum R. S.	21C11	3100	2/24	14	3.4	12.8	6.7
Green Lake	21C10	6000	2/25	110	33.3	33.0	29.1

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1976 - APPENDIX 6

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
LOWER COLUMBIA DRAINAGE							
ASOTIN CREEK							
Spruce Springs	17C04	5700	3/4	84	25.1	26.6	23.6
MILL CREEK							
Homestead	17C01	4030	2/24	25	8.3	11.6	7.4
Martin Springs	17C02	4400	2/24	40	12.1	16.2	11.9
Tollgate	18D3M	5070	2/26	86	29.8	22.9	21.1
KLICKITAT RIVER							
Satus Pass	20D01	4030	2/27	34	7.8	14.0	8.7
WHITE SALMON RIVER							
Cultus Creek	21C12	4000	3/1	141	43.4	41.1	40.5
Surprise Lakes	21C13A	4250	3/1	141	45.3	47.8	44.2
WIND RIVER							
Old Man Pass	21D19	3100	3/1	76	20.1	13.9	17.2
LEWIS RIVER							
Blue Lake +	21C22a	4800	3/1	242	75.0	75.7	69.7
Bob's Trail	21C21	2200	3/1	73	19.8	11.8	14.2
Calamity Ridge +	21D01a	2500	2/29	34	8.8	3.2	6.7
Council Pass +	21C18a	4200	2/29	152	48.6	42.1	37.1
Cultus Creek	21C12	4000	3/1	141	43.4	41.1	40.5
Divide Meadow +	21C29a	5600	2/29	170	54.4	54.7	50.9
Grand Meadow	21C25	3500	3/1	91	27.5	26.8	23.8
Lone Pine Shelter	21C26	3800	2/28	142	39.0	34.6	35.0
Marble Mountain +	22C05a	3200	2/29	94	32.0	21.1	31.4
Mosquito Meadows	21C19	4100	2/28	155	41.7	36.0	36.6
New Muddy River	22C06	2000	3/1	49	13.1	7.1	10.6
Old Man Pass	21D19	3100	3/1	76	20.1	13.9	17.2
Plains of Abraham +	22C01a	4400	2/29	170	54.4	52.8	58.5
Smith Creek Road	22C04	2100	2/29	58	15.3	14.3	17.2
Spencer Meadow +	21C20a	3400	2/29	96	28.8	17.8	21.5
Surprise Lakes	21C13A	4250	3/1	141	45.3	47.8	44.2
Table Mountain +	21C24a	4200	2/29	158	50.6	50.7	41.7
Timbered Peak +	21D18a	3000	2/29	77	22.3	10.6	16.0

\# Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO MARCH 1, 1976 - APPENDIX 7

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
COWLITZ RIVER							
Cayuse Pass	21C06	5300	2/25	216	76.2	83.1	70.4
Mosquito Meadows	21C19	4100	2/28	155	41.7	36.0	36.6
Ohanapecosh	21C32	2200	2/25	59	17.8	18.8	15.8
Packwood Lake	21C31	2870	2/23	41	41.1	14.9	12.7
Pigtail Peak	21C33	5900	2/25	188	65.2	60.7	57.2
Plains of Abraham +	22C01a	4400	2/29	170	54.4	52.8	58.5
Potato Hill	21C14	4500	2/25	104	28.1	32.4	28.8
White Pass (E. Side)	21C28	4500	2/17	64	17.1	24.9	20.8
			3/1	89	24.4	27.3	22.0
White Pass (L. Lake)	21C27	4500	2/25	89	22.7	32.9	26.1
Willame Creek	21C30	3250	2/25	100	29.0	28.7	26.9
PUGET SOUND DRAINAGE							
NISQUALLY RIVER							
Ghost Forest	21C04	4550	2/24	132	43.8	49.8	39.0
Longmire	21C03	2760	2/24	35	9.8	15.5	9.0
New Paradise Park	21C35	5500	2/24	176	68.0	80.0	61.8
Stem Glade	21C01	5050	2/24	185	68.4	72.0	60.5
WHITE RIVER							
Cayuse Pass	21C06	5300	2/25	216	76.2	83.1	70.4
Corral Pass	21B13	6000	3/1	Not Measured		48.5	34.3
Morse Lake	21C17	5400	3/4	149	47.4	71.0	47.7
GREEN RIVER							
Airstrip	21B24	1800	2/23	18	6.6	14.0	4.4
Charley Creek	21B25	1200	2/23	0	0.0	3.2	1.2
Cougar Mountain SP	21B42SP	3200	3/2	59	17.6	28.2	-
Grass Mtn. No. 2	21B27	2900	2/23	21	6.8	20.2	19.4
Grass Mtn. No. 3	21B28	2100	2/23	6	1.7	12.3	5.7
Lester Creek	21B29	3100	2/23	68	22.2	30.2	21.3
Lynn Lake	21B50	4000	2/23	23	7.4	26.7	-
Sawmill Ridge	21B31	4700	2/23	102	36.6	41.8	34.1
Snowshoe Butte SP	21B43SP	5000	3/2	147	46.7	67.8	-
Stampede Pass SP	21B10	3860	2/15	Not Measured		55.4	34.2
			2/25	-	37.4	61.2	36.2
Twin Camp	21B30	4100	2/23	60	19.7	30.8	21.6

Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MARCH 1, 1976 - APPENDIX 8

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
CEDAR RIVER							
City Cabin	21B03	2390	3/1	65	17.9	24.1	13.5
Mt. Gardner	21B21	3300	3/1	58	16.2	23.1	15.6
Mt. Lindsay	21B16	2500	3/1	48	10.8	17.7	12.8
Mt. Washington	21B15	3000	3/3	38	9.8	14.9	-
Rex River	21B17	2400	3/1	69	17.6	22.8	8.9
S. F. Cedar	21B06	3000	3/1	64	17.0	32.6	17.3
Tinkham Creek	21B20	3400	3/1	74	20.5	34.3	20.0
SNOQUALMIE RIVER							
Alpine Meadow	21B48	3500	3/3	143	40.4	42.9	-
Lake Elizabeth	21B19	2900	3/3	112	36.0	36.6	36.4
Olallie Meadows	21B02	3625	3/2	156	67.5	52.6	40.6
S. F. Tolt	21B18	1900	3/2	19	3.6	5.5	2.7
SKYKOMISH RIVER							
Lake Elizabeth	21B19	2900	3/3	112	36.0	36.6	36.4
Stevens Pass	21B01	4070	2/13	110	43.3	54.6	42.5
			2/26	152	54.8	60.4	45.7
Stevens Pass Sandshed	21B45	3700	2/13	74	29.0	37.5	-
			2/26	112	37.0	39.8	-
SKAGIT RIVER							
Beaver Creek Trail	21A04	2200	3/1	Not Measured		20.4	13.0
Beaver Pass	21A01	3680	3/1	Not Measured		30.2	28.3
Brown Top	21A28a	6000	3/1	215	78.5	59.0	-
Cloudy Pass	20A22a	6500	3/1	146	45.3	44.8	37.4
Devils Park	20A04	5900	2/23	147	53.9	47.9	39.4
Freezeout Cr. Trail	20A01	3500	3/1	51	14.2	13.7	11.8
Freezeout Meadows New	20A38	5000	2/25	101	34.3	37.8	25.7
Granite Creek	21A29	3500	2/23	78	22.0	21.0	-
Harts Pass	20A05A	6500	2/23	138	49.1	46.1	38.8
Klesilkwa	35B-Can	3700		Late Report		-	13.0*
Lyman Lake +	20A23A	5900	3/1	208	64.5	-	52.5
Meadow Cabins	20A08	1900	2/23	32	11.5	10.6	6.8
New Hozomeen Lake	21A30	2800	3/1	54	15.0	15.7	-
New Tashme	26A-Can	2500	2/29	53	14.3	17.8	11.2*
Quartette Lake	34-Can	4000	2/27	61	10.9	10.1	-
Rainy Pass	20A09	4780	2/23	138	45.4	42.6	36.0
Thunder Basin	20A07	4200	2/23	68	19.9	36.2	19.8

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS-PORTLAND OREGON 1973

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SNOW DATA TO MARCH 1, 1976 - APPENDIX 9

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
BAKER RIVER							
Baker Pass +	21A27a	4900	3/1	244	93.0	76.0	-
Dock Butte	21A11A	3800	3/1	206	78.0	68.0	61.3
Easy Pass	21A07A	5200	3/1	208	79.0	68.0	72.0
Jasper Pass	21A06A	5400	3/1	278	108.0	86.0	82.8
Marten Lake	21A09A	3600	3/1	242	92.0	77.0	67.6
Mount Blum +	21A18a	5800	3/1	171	65.0	62.0	58.2
Panorama New	21A26	4300	2/15	150	48.5	61.0	-
			2/28	193	67.3	68.5	-
Rocky Creek	21A12A	2100	3/1	126	48.0	32.0	25.4
Schreibers Meadow	21A10A	3400	3/1	168	64.0	52.0	53.8
S. F. Thunder Creek	21A14A	2200	3/1	62	20.0	14.0	8.1
Watson Lakes	21A08A	4500	3/1	Not Measured		64.0	57.6
NOOKSACK RIVER							
Bald Mountain +	21A19a	4400	3/2	164	57.4	61.2	42.9
Canyon +	21A20a	5100	3/2	233	81.6	66.8	48.3
Glacier Creek	21A23	3700	3/1	Not Measured		25.5	21.6
Panorama New	21A26	4300	2/15	150	48.5	61.0	-
			2/28	193	67.3	68.5	-
Twin Lakes +	21A21a	5200	3/2	275	96.2	84.8	62.3
O L Y M P I C P E N I N S U L A							
MORSE CREEK							
Cox Valley	23B14	4500	2/28	152	44.6	35.0	-
ELWHA RIVER							
Hurricane	23B03	4500	2/29	109	27.9	18.5	20.0
SKOKOMISH RIVER							
Black & White	23B07	4200	2/23	100	32.2	35.5	33.5
Black & White Lakes	23B06	4700	2/23	122	43.8	54.0	51.2
Four Streams	23B10	3000	2/23	55	18.4	27.8	27.0
Home Sweet Home	23B05	5200	2/23	172	58.8	63.7	64.5

USDA SCS PORTLAND OREGON 1973-

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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WATER SUPPLY OUTLOOK FOR WASHINGTON

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DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
APR. 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Sail Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

USDA-SCS-PORTLAND, OREG. 1975

WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

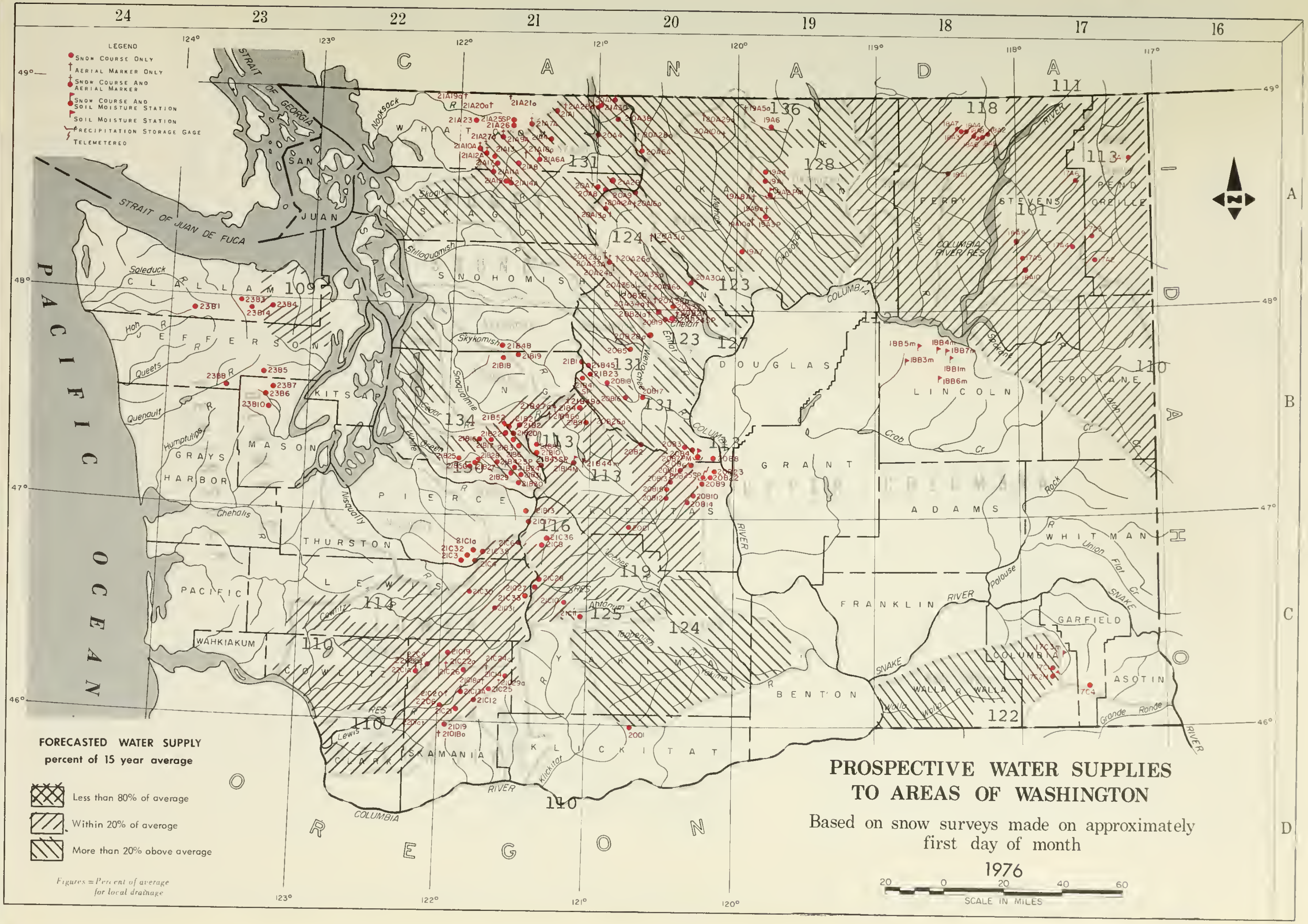
JOHN A. BIGGS

DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201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PROSPECTIVE WATER SUPPLIES TO AREAS OF WASHINGTON
Based on snow surveys made on approximately first day of month
1976
SCALE IN MILES

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

UPPER COLUMBIA DRAINAGE

Pend Oreille River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970

Kettle River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600

Colville River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	38E	3370

Sanpoil River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Sherman Creek Pass	18A1	19	36N	35E	5350

Okanogan River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845

Methow River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650

Chelan Lake Basin

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500

Entiat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Blue Creek G.S.	20828a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20B245P	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20821a	10	28N	18E	5300

Wenatchee River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	2082	35	22N	17E	4270
Chiwaukum G. S.	20816	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20818	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700

Wenatchee River (continued)

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Trough #2	20B255F	10	20N	20E	5310

Colockum Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300

Squilchuck Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400

Stemilt Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Jump-Off	2088	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7PM	30	21N	20E	4400

Crab Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Creston-Kunz	1881m	32	27N	34E	2440
Jack Woods	18B3m	28	27N	31E	2750
Krause	1884m	21	27N	33E	2420
Sheffels	1885m	17	27N	32E	2378
Sherman	1887m	24	27N	33E	2440
Wheatridge	1886m	24	25N	32E	2290

Yakima River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20810	17	19N	20E	4123
Oomery Flat	21B44m	15	20N	14E	2200
Fish Lake	2184	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21846a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20814	20	19N	20E	3360
Tunnel Avenue	2188	13	21N	11E	2450
Van Epps Pass	20826a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500

LOWER COLUMBIA DRAINAGE

Asotin Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Spruce Springs	17C4	9	8N	40E	5700

Mill Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400

Klickitat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Satus Pass	2001	21	6N	17E	4030

White Salmon River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Cultus Creek	21C12	35	7N	8E	4000

Lewis River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	2201a	8	5N	5E	2500
Council Pass	21C18a	24	9N	9E	4200

Lewis River (continued)

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Oivide Meadow	21C29a	21	9N	10E	5600
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3800
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	2000
Oldman Pass	21019	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21018a	36	6N	6E	3000

Cowlitz River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250

PUGET SOUND DRAINAGE

Nisqually River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C35	13	15N	8E	5500
Stem Glade	21C1	13	15N	8E	5050

White River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Corral Pass	21B13	30	18N	11E	6000

Green River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Airstrip	21824	18	20N	11E	1800
Charley Creek	21825	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21850	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B435P	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100

Cedar River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21852	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400

Snoqualmie River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Alpine Meadow	21B48	31	27N	9E	3500
Olallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B18	26	26N	9E	1900

Skykomish River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Lake Elizabeth	21B19	33	26N	10E	2900

Skagit River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200

Baker River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500

Nooksack River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A255P	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

OLYMPIC PENINSULA

Dungeness River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Deer Park	23B4	1	28N	5W	5200

Morse Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Cox Valley	23814	31	29N	6W	4500

Elwha River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Hurricane	23B3	36	29N	7W	4500

Skokomish River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Black and White	23B7	17	24N	5W	4200
Black and White Lakes	23B6	16	24N	5W	4700
Four Stream	23810	1	23N	6W	3000
Home Sweet Home	2385	28	25N	5W	5200
Sundown Pass	2388	25	24N	7W	3900

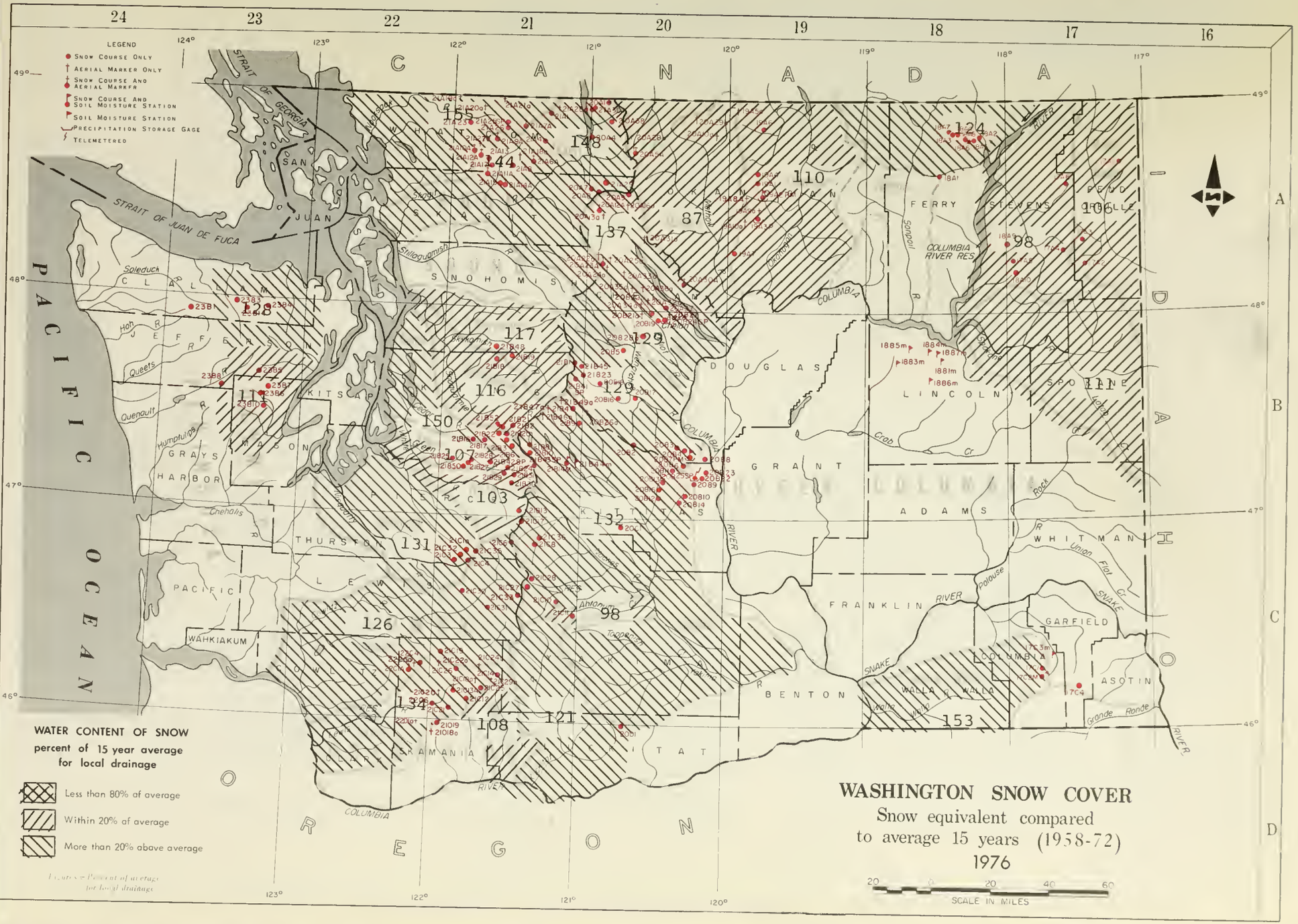
Soleduck River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Deer Lake	2381	14	28N	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7	Snow Course Only
21A7a	Aerial Marker Only
21A7A	Snow Course and Aerial Marker
21A7M	Snow Course and Soil Moisture Station
21A7m	Soil Moisture Station
21A7P	Snow Course and Precipitation Storage Gage
21A7p	Precipitation Storage Gage
21A7SP	Snow Pillow



LEGEND
Snow Course Only
Aerial Marker Only
Snow Course And Aerial Marker
Snow Course And Soil Moisture Station
Soil Moisture Station
Precipitation Storage Gage
Telemetered
WATER CONTENT OF SNOW
percent of 15 year average
for local drainage
Less than 80% of average
Within 20% of average
More than 20% above average
Figures = Percent of average for local drainage
WASHINGTON SNOW COVER
Snow equivalent compared
to average 15 years (1958-72)
1976
SCALE IN MILES
CANADA
IDAHO
OREGON
PACIFIC OCEAN
STRAIT OF JUAN DE FUCA
STRAIT OF GEORGIA
COLUMBIA RIVER RES.
SAN JUAN
WHATCOM
SKAGIT
SNOHOMISH
OKANOGAN
FERRY
STEVENS
PEND OREILLE
CLALLAM
JEFFERSON
KITSAP
MASON
GRAYS HARBOR
THURSTON
PACIFIC
LEWIS
WAHKIAKUM
COWLITZ
CLARK
SKAMANIA
KLICKITAT
YAKIMA
BENTON
FRANKLIN
GRANT
DOUGLAS
LINCOLN
SPOKANE
ADAMS
WHITMAN
GARFIELD
COLUMBIA
WALLA WALLA
ASOTIN
COLUMBIA RIVER
SNAKE RIVER

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

UPPER COLUMBIA DRAINAGE

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	3BE	3370
Sanpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5350
Okanogan River					
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	284S
Methow River					
Billy Goat Pass	20A10a	10	38N	20E	6400
Oollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650
Chelon Lake Bosin					
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Entiat River					
Blue Creek G.S.	20B28a	19	28N	18F	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20B21a	10	2BN	18E	5300
Wenatchee River					
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B1B	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700
Wenatchee River (continued)					
Trough #2	20B25SP	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	18B1m	32	27N	34E	2440
Jack Woods	18B3m	28	27N	31E	2750
Krause	18B4m	21	27N	33E	2420
Sheffels	18B5m	17	27N	32E	237B
Sherman	1B87m	24	27N	33E	2440
Wheatridge	18B6m	24	25N	32E	2290
Yokima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	21B9	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Oomery Flat	21B44m	15	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	293C
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21B14M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500

LOWER COLUMBIA DRAINAGE

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Asatin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Klickitat River					
Satus Pass	20D1	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	2201a	8	5N	5E	2500
Council Pass	21C1Ba	24	9N	9E	4200
Lewis River (continued)					
Divide Meadow	21C29a	21	9N	10E	5600
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3800
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	2000
Oldman Pass	21019	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21018a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250

PUGET SOUND DRAINAGE

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	BE	2760
Paradise Park (New)	21C3S	13	15N	8E	5500
Stem Glade	21C1	13	15N	BE	5050
White River					
Corral Pass	21B13	30	18N	11E	6000
Green River					
Airstrip	21B24	1B	20N	11E	1800
Charley Creek	21B25	27	21N	BE	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3B60
Twin Camp	21B30	18	19N	11E	4100
Cedar River					
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21B52	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21B4B	31	27N	9E	3500
Olallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B18	26	26N	9E	1900
Skykomish River					
Lake Elizabeth	21B19	33	26N	10E	2900
Skagit River					
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A2Ba	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20AB	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Oock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksack River					
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

OLYMPIC PENINSULA

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV
Dungeness River					
Oeer Park	23B4	1	28N	5W	5200
Morse Creek					
Cox Valley	23B14	31	29N	6W	4500
Elwho River					
Hurricane	23B3	36	29N	7W	4500
Skakomish River					
Black and White	23B7	17	24N	5W	4200
Black and White Lakes	23B6	16	24N	5W	4700
Four Stream	23B10	1	23N	6W	3000
Home Sweet Home	23B5	28	25N	5W	5200
Sundown Pass	23B8	25	24N	7W	3900
Soleduck River					
Oeer Lake	23B1	14	2BN	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7 Snow Course Only
21A7a Aerial Marker Only
21A7A Snow Course and Aerial Marker
21A7M Snow Course and Soil Moisture Station
21A7m Soil Moisture Station
21A7P Snow Course and Precipitation Storage Gage
21A7p Precipitation Storage Gage
21A7SP Snow Pillow

WATER SUPPLY OUTLOOK

State of Washington
April 1, 1976

In spite of the below normal rainfall that has occurred over most of the Columbia Basin, the snow cover has increased, percentagewise, from that which was reported last month. This has resulted in an increase of most of the forecasts, percentagewise, from that which was previously reported. Snow cover now ranges from a low of 21 percent below normal on the Sanpoil River, to a high of 55 percent above for the Nooksack River. The storm pattern that has occurred over the state has been pretty normal this past month. Snow cover is fairly light densitywise, but this will rapidly change as the month of April progresses. This light density is a continuation of that reported last month. We can generally consider that only minor changes will occur in the expected water supply due to variations of climatic conditions through the remainder of the runoff season.

SNOW COVER

The Upper Columbia Basin has a wide range of snow covers when compared to normal. As reported above, the Sanpoil, measured by only one snow course, has a snow cover that is 21 percent below average. The Chelan Drainage is the high one in this area, having a snow pack that is 37 percent greater than normal. Most of the snow courses in this area are in the high twenties and low thirties. Along the Lower Columbia, Mill Creek, a tributary to the Walla Walla River, has the high snow pack of the area, 53 percent above normal. The White Salmon has the lowest, and this, 8 percent above average. In the Puget Sound Drainage, the Nooksack has the greatest snow cover, as of April 1, with the Cedar, Skagit, and Baker very close. The White River, measured by only two snow courses, has the poorest snow cover, that, 3 percent above average. Only two drainages are compared on the Olympic Peninsula, with the Elwha, flowing north by Port Angeles, having a snow cover that is 28 percent above average and the Skokomish, flowing into Cushman Reservoir, 11 percent above.

RESERVOIRS

The five irrigation reservoirs in the Yakima Drainage have water in storage 11 percent greater than average, as of April 1. Two minor irrigation reservoirs in the Okanogan Irrigation District area, have water in storage that is 14 percent above average. Lake Roosevelt is the only reservoir that is deficient in water supply and this is a temporary situation and will fill without problems during the spring runoff. Ross Reservoir has 12 percent more than average water in storage, while Chelan Lake has 111 percent more than average water in storage.

PRECIPITATION

March rainfall, as reported by the National Weather Service, was deficient in all drainage divisions in the Columbia Basin except the Upper Columbia in Canada and southeastern Washington. These two areas had rainfall 12 percent above and 4 percent above normal, respectively. The northcentral area was very deficient during March, having only 44 percent of average precipitation during the month. The other areas ranged from 79 to 88 percent of normal rainfall. When March rainfall is added to the previous winter months, the resultant winter rainfall picture shows the northwest slopes of the Cascades having the greatest, 25 percent above average; central Washington next, 22 percent above; the southwest slope at 11 above and Columbia in Canada, 6 percent above. The other drainage divisions range from 98 percent of normal down to 85 percent of normal. The five precipitation stations measured by the Bureau of Reclamation at the reservoir sites, indicate rainfall in these areas to be 74 percent of normal. Last month, these same stations had a precipitation that was 27 percent greater than average.

STREAMFLOW

Runoff during the month of March was generally deficient. The Okanogan River, as measured at Tonasket, had a flow that was 33 percent greater than average, but this was the result of the dumping of Okanogan Lake. The Palouse, Walla Walla and Chehalis Rivers also had above normal outflows, but this is thought to be the result of low elevation snow melt from these areas. The main stem of the Columbia, as measured at Birchbank and The Dalles, was 4 percent below average. The greatest area of deficit was on the Yakima River, as measured at Kiona. This station, corrected for storage, had an outflow that was only 59 percent of normal. Forecasts of streamflow for the forthcoming runoff season have been increased slightly from that reported last month. Forecasts now range from a low of 1 percent above normal for the Colville River,as measured at Kettle Falls, to a high of 50 percent above normal for the Green River below Howard Hanson Dam. These are both for April-September periods. Most forecasts are in the 10 to 20 percent above normal range. Numerical forecasts can be found on the following pages for these and other gaging stations in the state.

STREAMFLOW FORECASTS - APRIL, 1976

The following summarized runoff forecasts are based principally on mountain snowcover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1975 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet: % 15-Yr. Avg.	Forecast period	1975	1974	1973	15-Yr. Average 58-72
COLUMBIA BASIN							
COLUMBIA RIVER SYSTEM							
Columbia River at Birchbank 1/	51500	111	Apr-Sept	41188	54227	34796	46410
	41300	110	Apr-July	33033	44492	27876	37548
	30600	111	Apr-June	22534	31894	20203	27549
Columbia River at Grand Coulee 1/	77440	112	Apr-Sept	66512	85139	45849	69020
	64800	111	Apr-July	55890	73671	38193	58368
	52000	113	Apr-June	41354	57033	29886	46049
Columbia River bl. Rock Island Dam 1/	85200	113	Apr-Sept	74143	96939	49117	75290
	72000	112	Apr-July	63212	84480	41200	64181
	57000	113	Apr-June	47192	65246	32032	50594
Columbia River at The Dalles, Or 1/	114900	110	Apr-Sept	109012	139724	65162	104600
	98200	109	Apr-July	94328	123570	54260	89875
	83000	113	Apr-June	73078	99282	43395	73143
PEND OREILLE RIVER SYSTEM							
Pend Oreille River bl. Box Canyon	18000	113	Apr-Sept	17559	21551	8311	15950
	16400	112	Apr-July	15872	20103	7614	14677
	14000	110	Apr-June	12587	16732	6756	12767
KETTLE RIVER SYSTEM							
Kettle River nr. Laurier	2210	118	Apr-Sept	1861	2831	1121	1873
	2100	117	Apr-July	1779	2752	1093	1794
	1920	117	Apr-June	1592	2476	1020	1640
Colville River at Kettle Falls	150	101	Apr-Sept		286	54	148
	140	102	Apr-July		269	50	137
	130	102	Apr-June		252	48	128

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast period	1975	1974	1973	15-Yr. Average 58-72
			Seasonal Streamflow in Thousands of Acre-Feet				
SPOKANE RIVER SYSTEM*							
Spokane River	3300	110	Apr-Sept	3088	4801	1140	2982
at Post Falls, ID 2/	3200	110	Apr-July	2944	4682	1082	2899
	3050	110	Apr-June	2736	4409	1022	2773
OKANOGAN RIVER SYSTEM							
Similkameen River	2060	136	Apr-Sept	1434	2216	736	1516
nr. Nighthawk	1940	136	Apr-July	1339	2092	697	1424
	1660	136	Apr-June	1092	1710	621	1222
Okanogan River	2200	128	Apr-Sept	1582	2757	765	1723
nr. Tonasket	1990	126	Apr-July	1437	2534	707	1582
	1690	125	Apr-June	1181	2029	622	1349
METHOW RIVER SYSTEM							
Methow River	1270	123	Apr-Sept		1665	512	1031
nr. Pateros	1160	120	Apr-July		1555	476	963
	1020	123	Apr-June		1268	417	832
CHELAN RIVER SYSTEM							
Chelan River	1590	127	Apr-Sept	1368	1749	777	1253
at Chelan	1430	128	Apr-July	1216	1508	680	1112
	1140	129	Apr-June	856	1115	544	881
Stehekin River	1120	124	Apr-Sept		1223	541	904
at Stehekin	975	126	Apr-July		996	447	776
	770	128	Apr-June		717	352	600
Entiat	295	123	Apr-Sept		387	145	239
nr. Ardenvoir	270	123	Apr-July		347	131	220
	220	122	Apr-June		256	113	180

* Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.

2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
WENATCHEE RIVER SYSTEM							
Wenatchee River	1720	131	Apr-Sept	1396	1910	790	1312
at Plain	1560	131	Apr-July	1262	1652	709	1187
	1220	128	Apr-June	924	1188	589	956
Wenatchee River	2340	131	Apr-Sept	1920	2556	1033	1786
at Peshastin	2150	132	Apr-July	1738	2232	938	1629
	1740	131	Apr-June	1279	1632	786	1324
Stemilt Basin							
nr. Wenatchee	160	116	May-Sept				138*
YAKIMA RIVER SYSTEM							
Yakima River	160	113	Apr-Sept	168	231	83	142
nr. Martin 4/	145	111	Apr-July	154	214	76	131
	130	112	Apr-June	127	170	70	116
Yakima River	1090	113	Apr-Sept	1112	1463	555	968
at Cle Elum 5/	990	113	Apr-July	1012	1335	489	877
	860	113	Apr-June	842	1067	433	764
Yakima River	2150	124	Apr-Sept			582	1730
nr. Parker 6/	2120	125	Apr-July			590	1701
	1950	123	Apr-June			598	1580
Kachess River	140	113	Apr-Sept	154	207	66	125
nr. Easton 7/	130	111	Apr-July	145	193	63	118
	120	114	Apr-June	120	156	59	106
Cle Elum River	560	118	Apr-Sept	539	745	285	477
nr. Roslyn 8/	510	117	Apr-July	492	664	255	437
	435	117	Apr-June	388	500	220	372
Bumping River	170	116	Apr-Sept	179	230	74	146
nr. Nile 9/	155	116	Apr-July	163	206	68	134
	130	116	Apr-June	119	152	61	112

* Thousands of Miners' inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

9/ Observed flow corrected for storage in Bumping Lake.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Forecast period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
YAKIMA RIVER SYSTEM (Cont.)							
American River	145	113	Apr-Sept	149	203	70	128
nr. Nile	135	114	Apr-July	137	181	65	118
	115	115	Apr-June	104	137	58	100
Tieton River	290	117	Apr-Sept	299	402	160	247
at Tieton Dam 10/	250	117	Apr-July	253	334	124	211
	200	116	Apr-June	187	253	99	172
Naches River	1060	119	Apr-Sept	1054	1428	442	889
nr. Naches 11/	970	120	Apr-July	952	1286	385	810
	850	122	Apr-June	761	1038	336	698
Ahtanum Creek	60	125	Apr-Sept	57	83	21	48
nr. Tampico 12/	55	125	Apr-July	51	76	18	44
	50	128	Apr-June	44	64	16	39
LOWER COLUMBIA RIVER SYSTEM							
Mill Creek	33	122	Apr-Sept	39	57	17	27
nr. Walla Walla	30	125	Apr-July	34	51	13	24
	26	124	Apr-June	30	47	11	21
Lewis River	1480	110	Apr-Sept	1196	1951	800	1341
at Ariel 13/	1290	112	Apr-July	1028	1760	666	1151
	1150	112	Apr-June	891	1489	574	1028
Cowlitz River	2400	114	Apr-Sept		3323	1252	2101
Blw. Mayfield Dam	2130	115	Apr-July		2975	1068	1846
	1800	114	Apr-June		2416	904	1578
Cowlitz River	3050	110	Apr-Sept	2652	4128	1676	2773
at Castle Rock 14/	2610	108	Apr-July	2279	3694	1419	2416
	2290	110	Apr-June	1817	3029	1212	2083

10/ Observed flow corrected for storage in Rimrock Lake.
11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.
12/ Observed flow of North and South Forks (Combined).
13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.
14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet % 15-Yr. Avg.	Fore-cast period	1975	1974	1973	15-Yr. Average 58-72
OLYMPIC PENINSULA							
DUNGENESS RIVER SYSTEM							
Dungeness River nr. Sequim	180	109	Apr-Sept		205	120	165
	150	110	Apr-July		162	98	137
	115	111	Apr-June		111	74	104
PUGET SOUND							
SKAGIT RIVER SYSTEM							
Skagit River at Newhalem 15/	2960	131	Apr-Aug	2998	1519	3402	2260
CEDAR RIVER SYSTEM							
Cedar River at Cedar Falls	122	134	Apr-Sept	145	53	122	91
GREEN RIVER SYSTEM							
Green River blw. Howard Hanson Dam 16/	470	150	Apr-Sept	487	169	434	312

15/ Observed flow corrected for storage in Diablo, Ross and Gorge Reservoirs.
16/ Observed flow corrected for storage in Howard Hanson Dam.

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about April 1, 1976 as percent of the same date in 1975 and 1974 and average of record.

Tributary Basin	No. of Courses Average	1976 Snow Water Expressed as percent of 1975	1974	1958-72 Avg.
UPPER COLUMBIA BASIN				
Pend Oreille	17	86	85	106
Kettle	16	85	102	124
Colville	5	57	68	98
Spokane	16	96	79	111
Sanpoil	1	66	50	79
Okanogan	42	84	75	110
Methow	9	70	49	87
Chelan	6	119	89	137
Entiat	11	109	86	129
Wenatchee	10	97	82	129
Yakima	24	81	74	132
Ahtanum	2	66	61	98
LOWER COLUMBIA				
Mill Creek	3	106	76	153
Klickitat	1	63	64	121
White Salmon	2	101	66	108
Lewis	18	130	77	134
Cowlitz	10	107	83	126
PUGET SOUND				
Nisqually	4	103	81	131
White	2	94	78	103
Green	8	75	66	107
Cedar	7	85	74	150
Snoqualmie	4	122	72	116
Skykomish	3	104	76	117
Baker	13	124	95	144
Skagit	16	120	98	148
Nooksack	4	130	86	155
OLYMPIC PENINSULA				
Skokomish	4	102	75	111
Elwha	1	125	90	128
Morse Creek	1	131	94	-

RESERVOIR STORAGE - 1000 ACRE FEET

BASIN OR STREAM	RESERVOIR	USABLE 1/ CAPACITY	Measured (April) 1976	1975	1974	Normal*
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	118.3	85.5	263.5	174.1
Columbia	Franklin D. Roosevelt Lake	5232.0	1196.3	1682.3	-1878.4	1821.8
Columbia	Banks Lake	761.8	1042.4	688.2	690.8	581.4
Okanogan	Conconully Reservoir	13.0	11.3	11.7	7.2	11.8
Okanogan	Salmon Lake	10.5	9.8	9.2	7.4	7.5
Chelan	Lake Chelan	676.1	377.7	62.0	157.0	179.3
		YAKIMA				
Yakima	Keechelus Lake	157.8	129.1	96.1	114.4	107.8
Kachess	Kachess Lake	239.0	207.6	163.8	122.1	190.2
Cle Elum	Lake Cle Elum	436.9	321.9	266.4	225.0	283.2
Bumping	Bumping Lake	33.7	5.4	2.7	5.8	11.4
Tieton	Rimrock Lake	198.0	151.4	128.6	151.2	141.7
		PUCET SOUND				
Skagit	Ross Reservoir	1404.1	861.4	531.4	785.7	768.5
Skagit	Diablo Reservoir	90.6	89.9	85.3	83.8	85.5
Skagit	Gorge Reservoir	9.8	8.2	8.2	8.2	-

1/ Based on Active Storage

* 15-year Average 1958-72

SOIL MOISTURE - APRIL

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of April 1 1976	1975	1974
OKANOGAN							
Salmon Meadows	19A2M	4500	48	5.4	3.4	3.1	3.7
Trout Creek	3-M	3600	48	7.3	-	3.4	4.2
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	4.9
Lake Cle Elum	21B14M	2200	48	12.8	-	-	9.1
WALLA WALLA							
Couse	17C3m	3650	48	11.1	-	-	10.2
Helmers	17C2M	4400	48	12.0	-	-	10.0
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	12.6	9.0	12.3

FALL SOIL MOISTURE

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of Oct. 1 1975	1974	1973
OKANOGAN							
Salmon Meadows	19A02M	4500	48	5.4	3.2	1.8	2.6
Trout Creek	3-M	3600	48	7.3	3.1	3.0	2.8
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	2.6
Lake Cle Elum	21B14M	2200	48	12.8	-	-	6.1
WALLA WALLA							
Couse	17C3m	3650	48	11.1	7.3	-	5.6
Helmers	17C2M	4400	48	12.0	6.5	-	7.6
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	8.6	5.4	6.0

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL Sept-Oct 1975 Observed	FALL Departure 2/	WINTER Nov. 1975 - Mar. 1976 Observed	WINTER Departure 2/
Columbia in Canada	3.51	+ 0.96	13.54	+ 0.79
Pend Oreille - Spokane	4.27	- 0.21	18.45	- 0.30
Northeastern Washington	2.29	- 0.49	9.45	- 1.66
Southeastern Washington	2.94	- 0.29	11.77	- 1.70
Central Washington	5.47	+ 0.72	33.67	+ 6.14
North Central Washington	1.22	- 0.40	5.87	- 0.85
Northwest Slope Cascades	15.42	+ 2.73	65.16	+12.93
Southwest Slope Cascades	8.34	- 0.34	46.34	+ 4.70

Northeastern Washington - Lower Spokane, Colville, Sanpoil and Lower Kettle Drainages.

Southeastern Washington - Touchet, Tucannon and Palouse Drainages.

Central Washington - Yakima, Wenatchee and Chelan Drainages.

North Central Washington - Methow and Okanogan Drainages.

Northwest Slope Cascades - Puget Sound Drainages.

Southwest Slope Cascades - Lower Columbia Drainages.

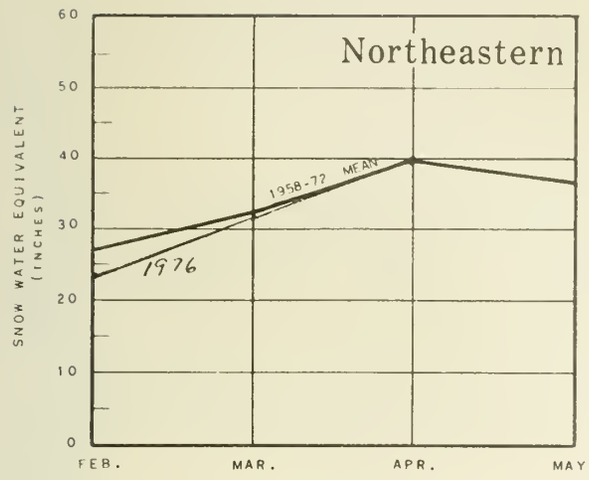
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

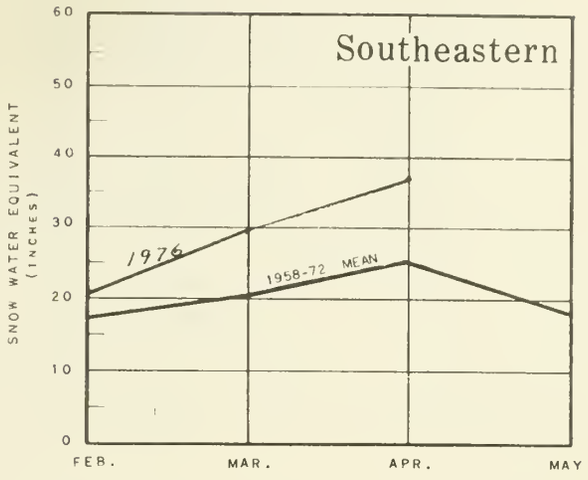
2. - Departure from 15-year (1958-72) drainage division average.

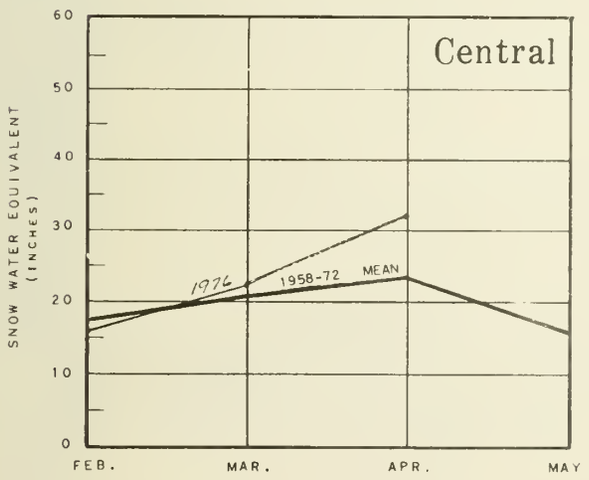
WASHINGTON SNOW COVER

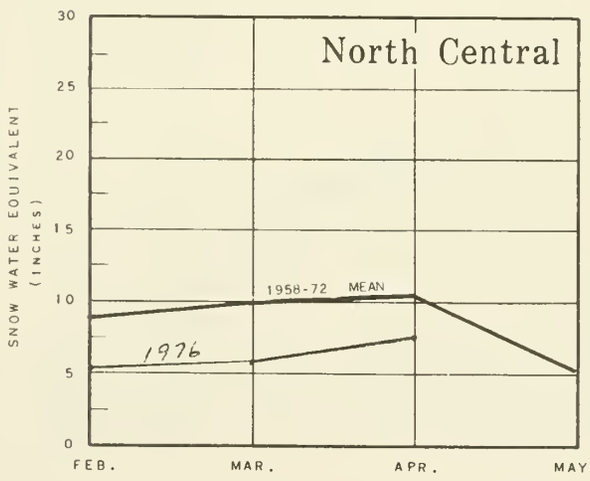
1976

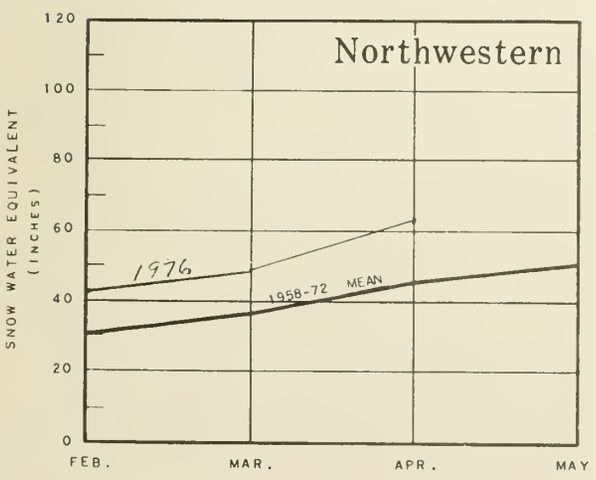
DRAINAGE AREAS

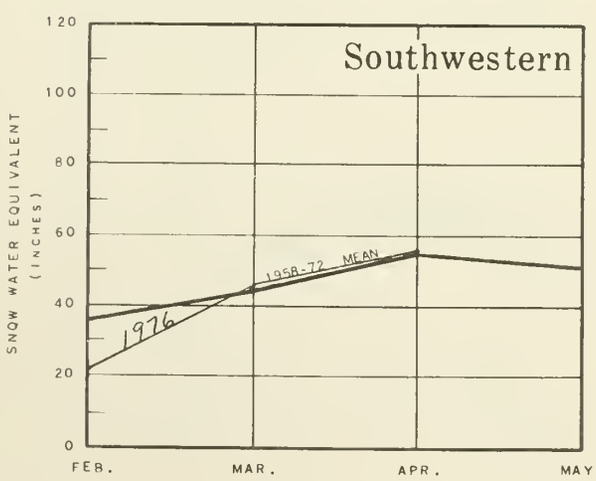










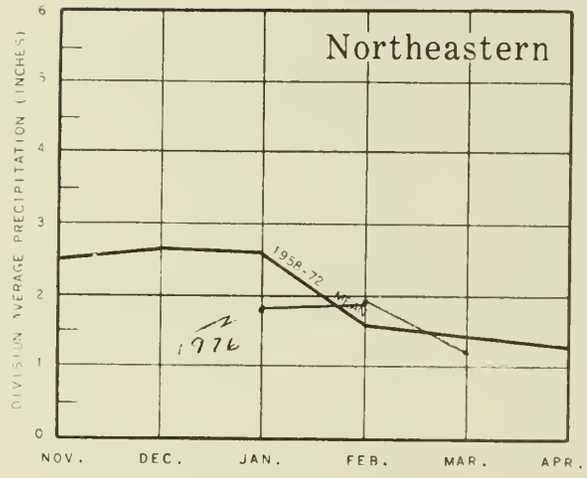


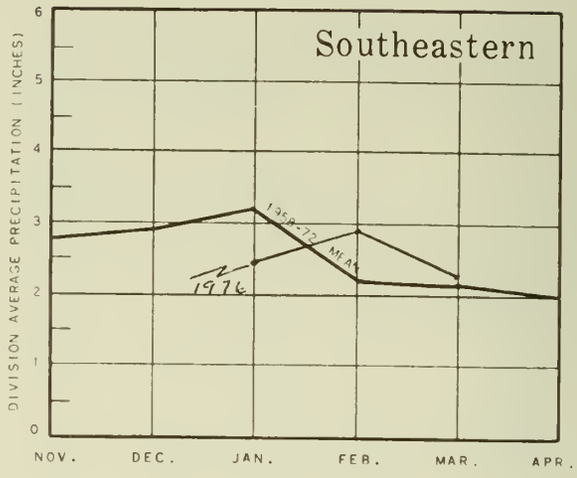
Selected Snow Survey Courses by Soil Conservation Service

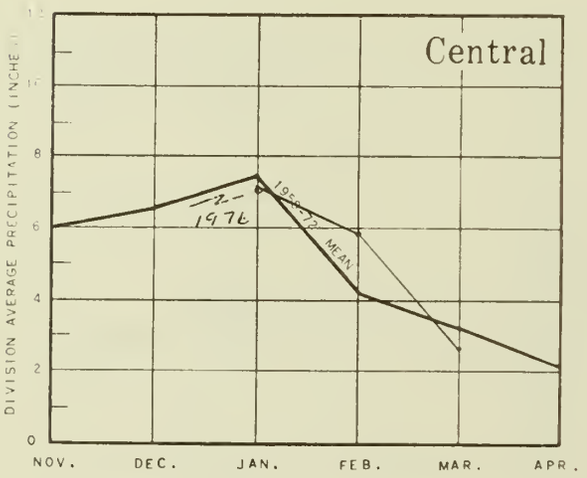
WASHINGTON VALLEY PRECIPITATION

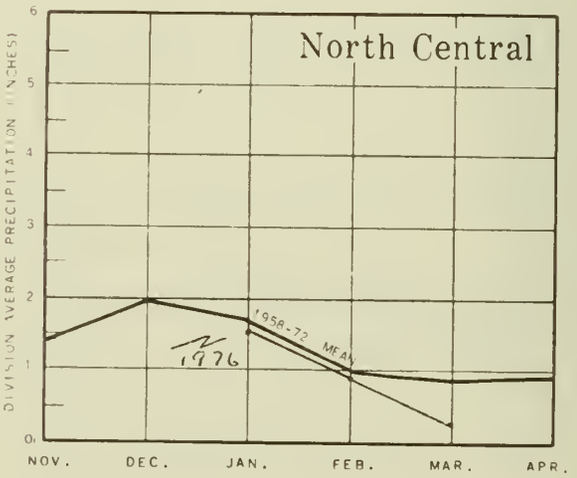
1976

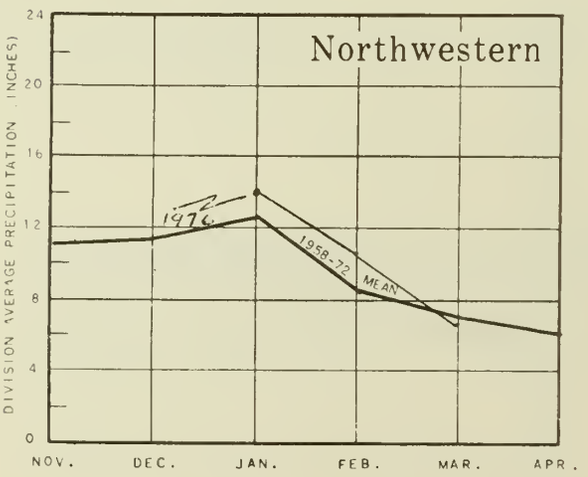
DRAINAGE AREAS

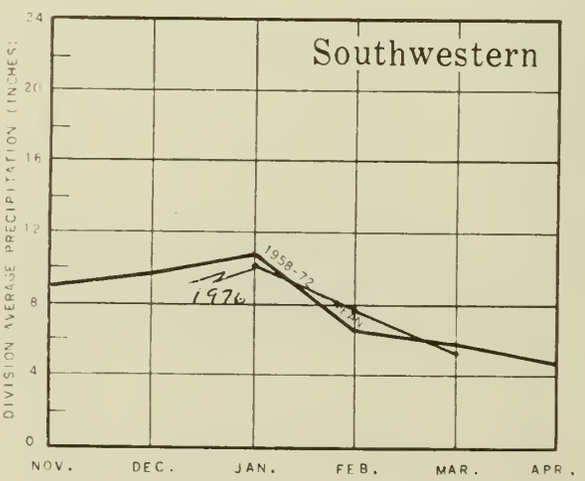






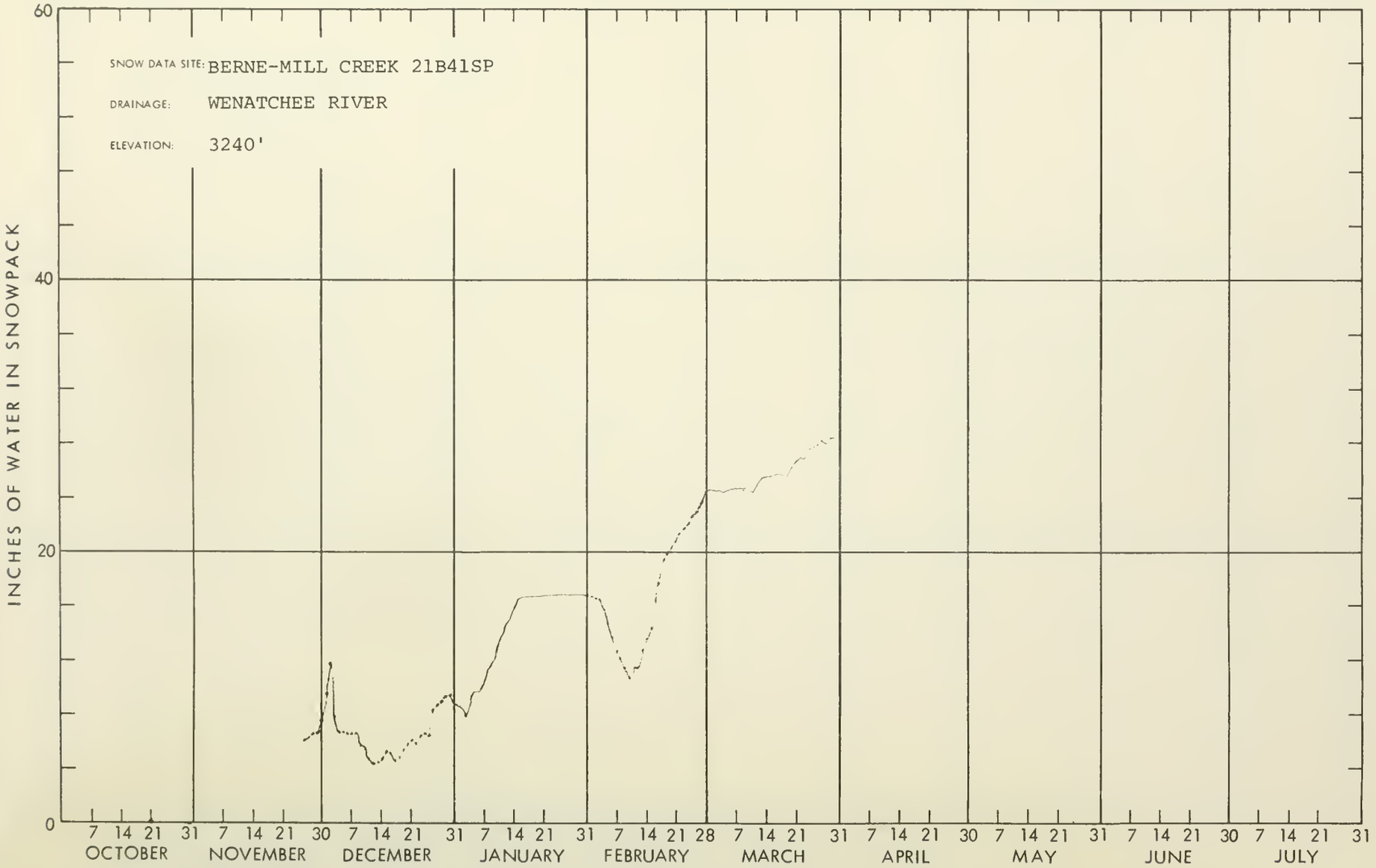






Preliminary Analysis by National Weather Service

WSF8-X13C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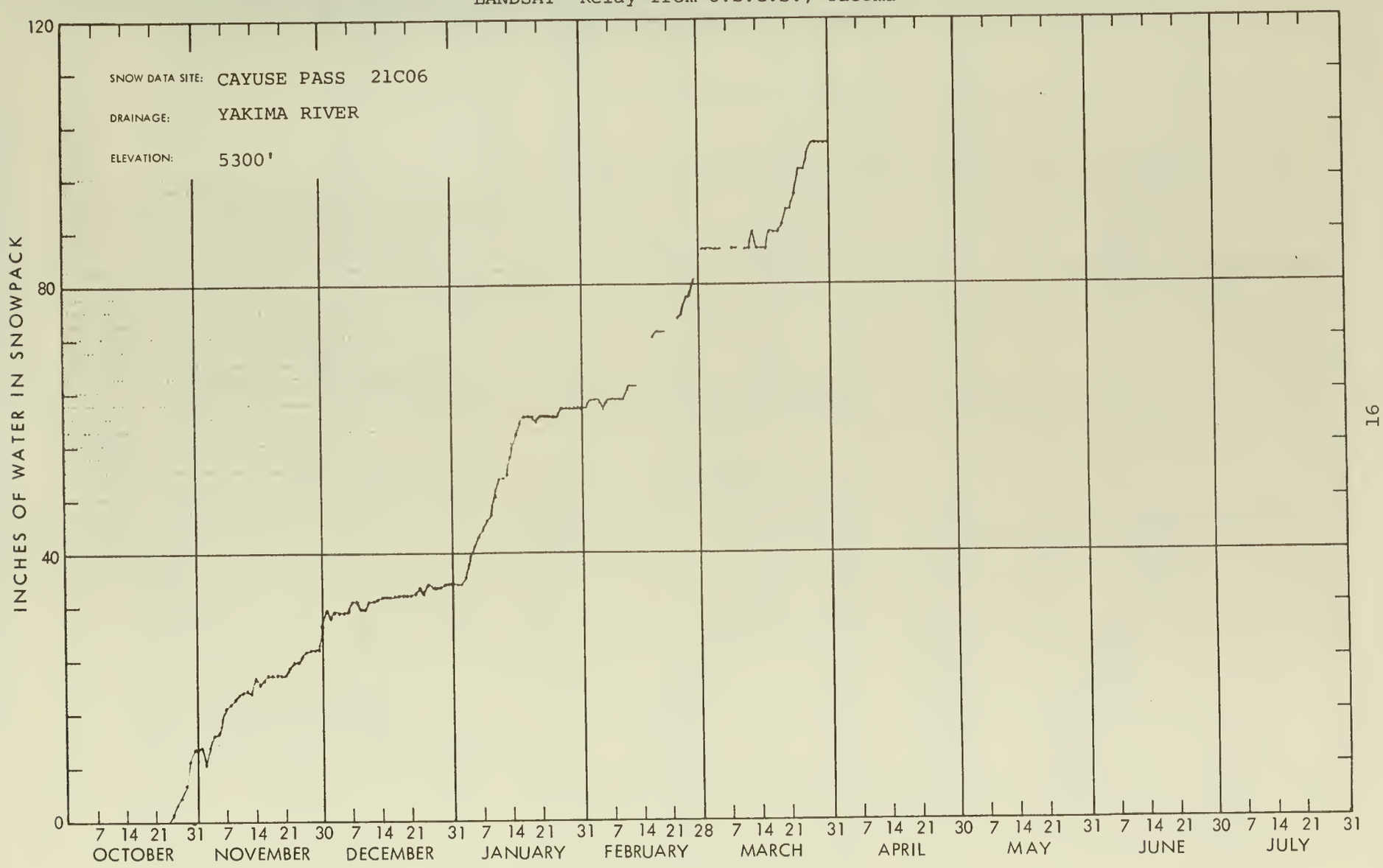
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

WSFB-X13D

"LANDSAT" Relay from U.S.G.S., Tacoma



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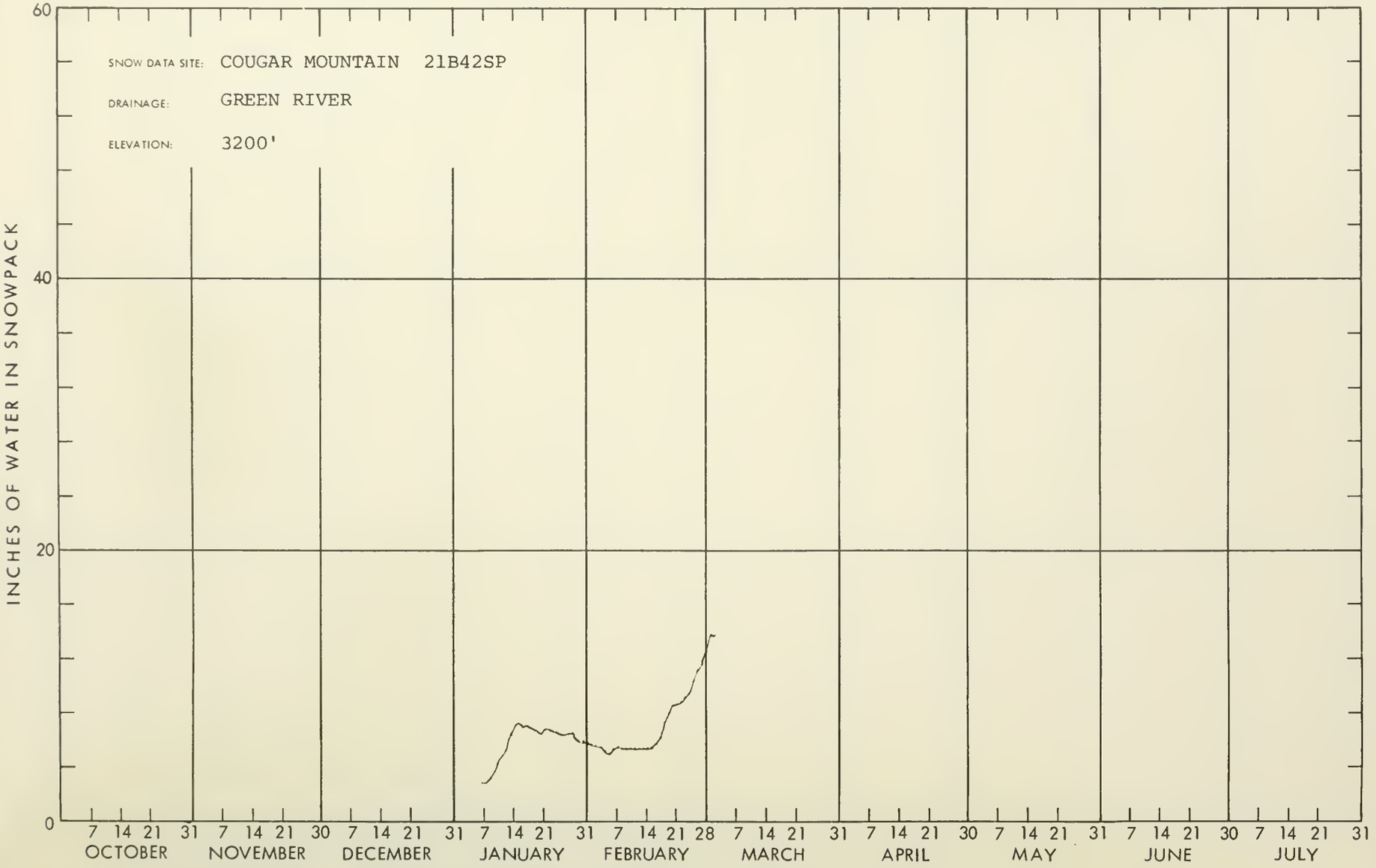
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DRAINAGE: GREEN RIVER
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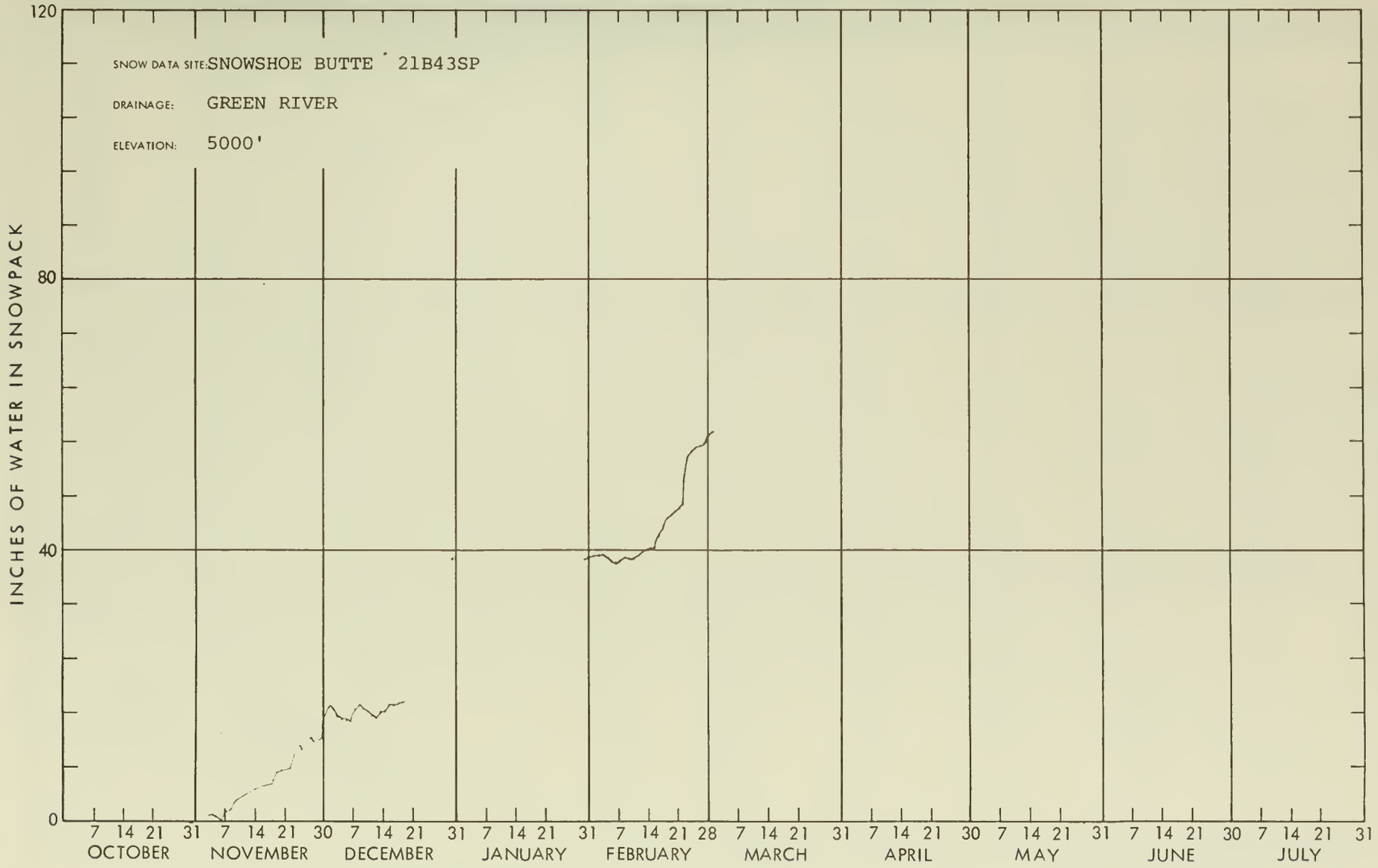
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

WSFB-X13D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DRAINAGE: GREEN RIVER
ELEVATION: 5000'
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OCTOBER
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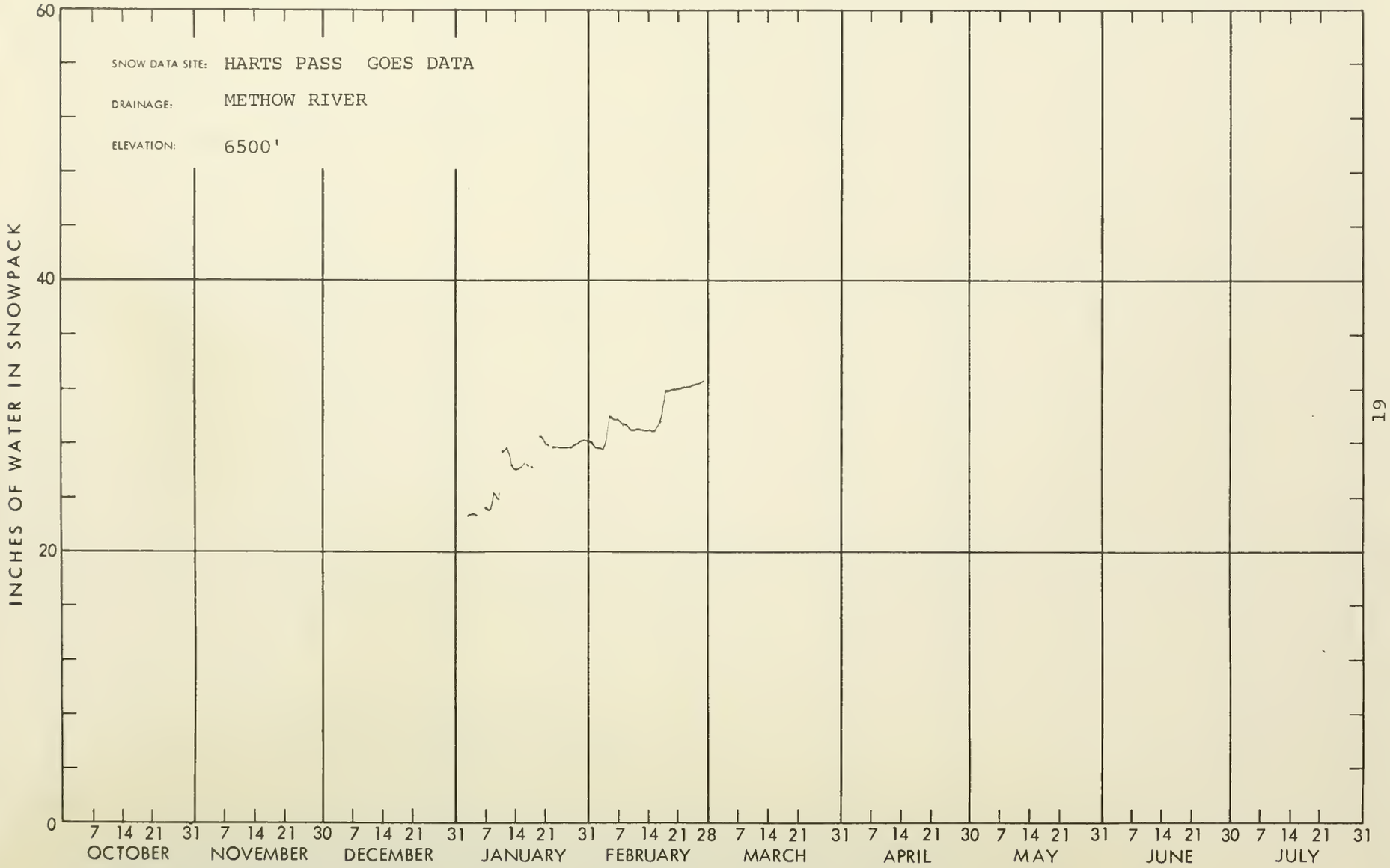
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DRAINAGE: METHOW RIVER
ELEVATION: 6500'
INCHES OF WATER IN SNOWPACK
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20
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7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

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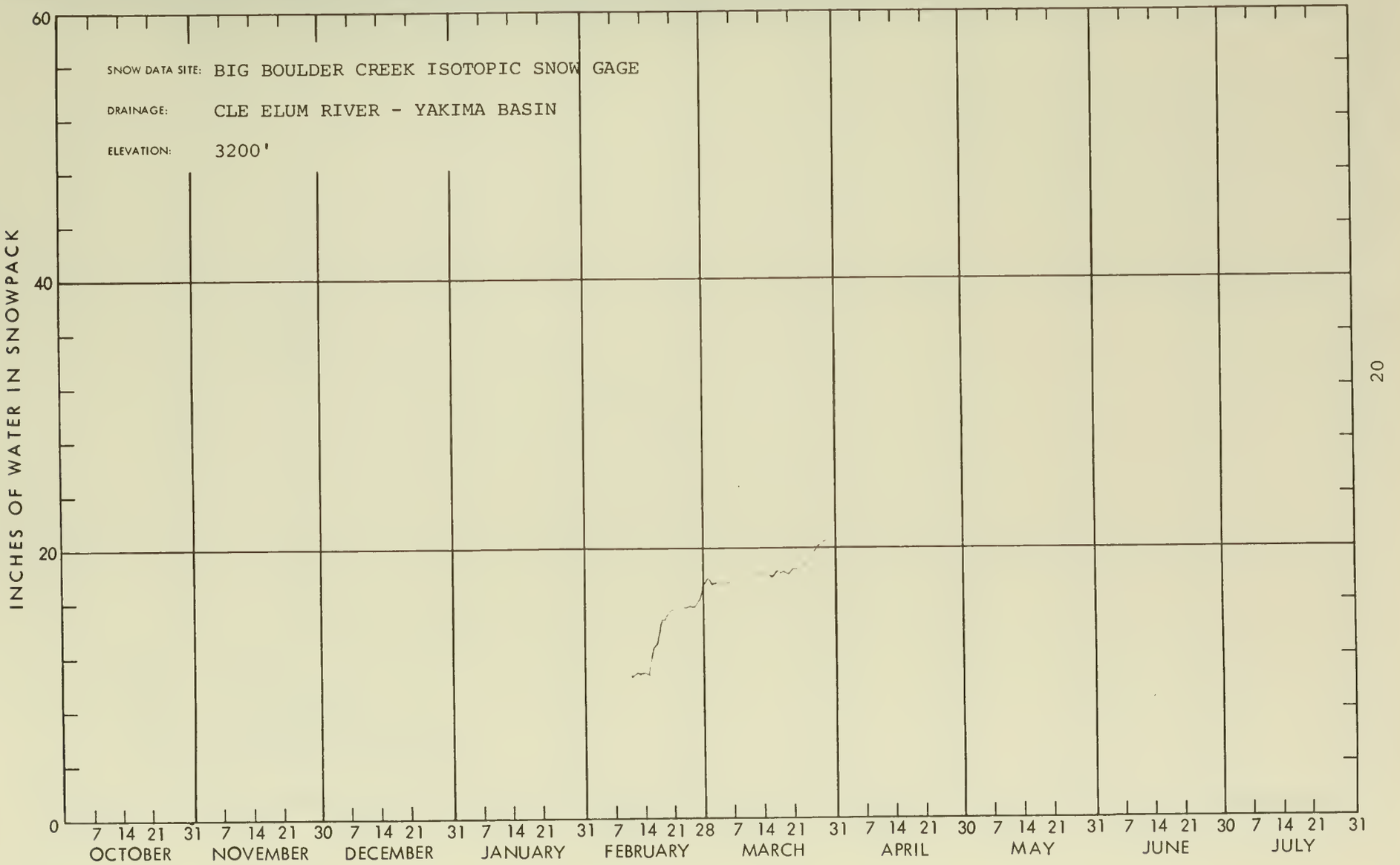
SNOW DATA SITE: BIG BOULDER CREEK ISOTOPIC SNOW GAGE
DRAINAGE: CLE ELUM RIVER - YAKIMA BASIN
ELEVATION: 3200'
INCHES OF WATER IN SNOWPACK
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40
20
0
20
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
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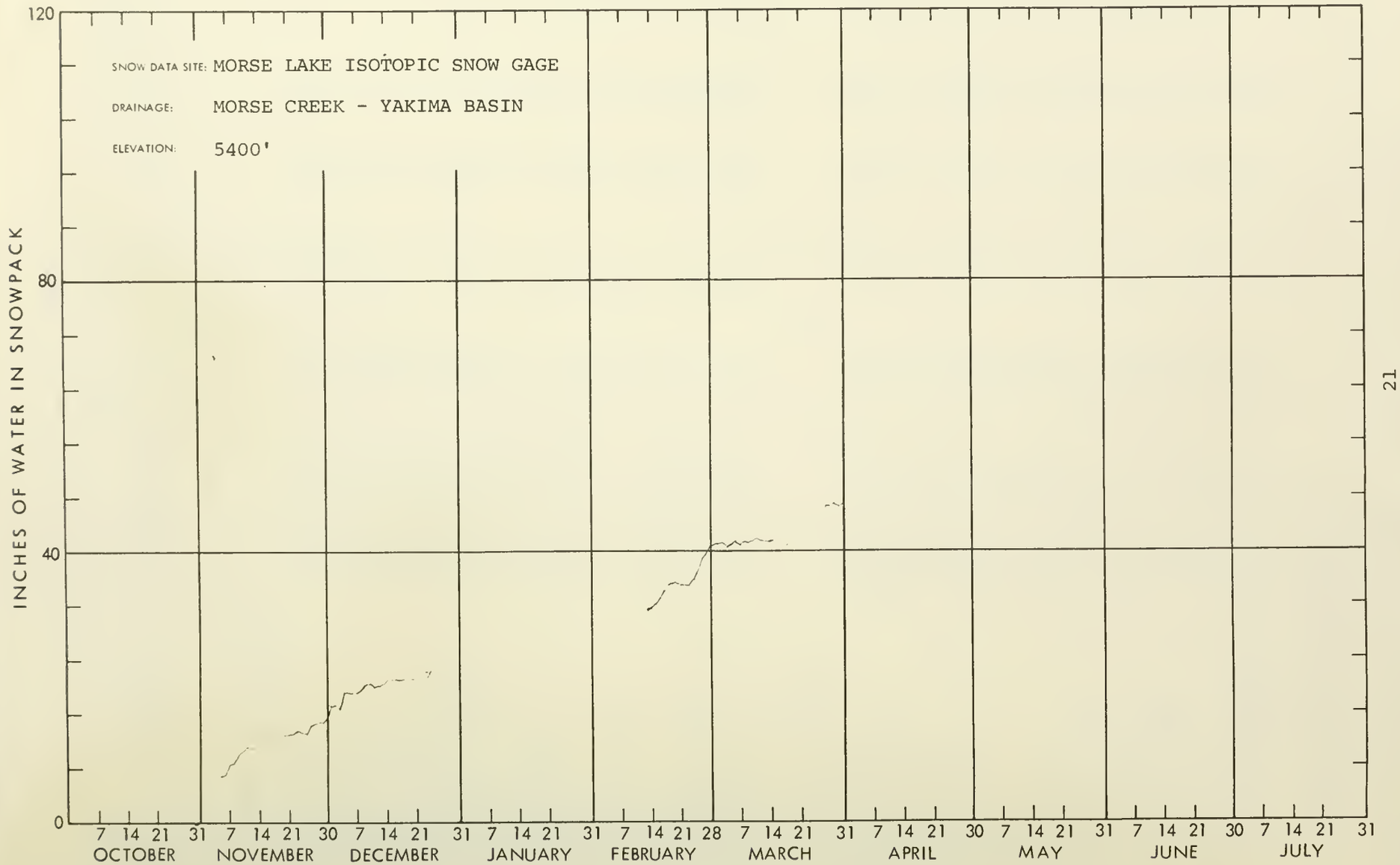
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DRAINAGE: MORSE CREEK - YAKIMA BASIN
ELEVATION: 5400'
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80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

SNOW DATA TO APRIL 1, 1976 - APPENDIX 1

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
UPPER COLUMBIA DRAINAGE							
PEND OREILLE RIVER							
Baree Creek	15B11	5500	4/1	147	59.8	59.1	49.4
Baree Midway	15B16	4600	3/31	121	45.0	49.8	37.7
Baree Trail	15B15	3800	4/1	36	14.3	15.3	9.6
Benton Meadow	16A02	2344	3/29	18	5.2	8.8	3.4
Benton Spring	16A03	4900	3/29	53	16.0	23.8	19.4
Boyer Mountain	17A02	5250	3/29	79	24.5	33.2	27.9
Brush Creek Timber	14A13	5000	3/30	35	10.8	12.6	13.1
Bunchgrass Meadow	17A01	5000	3/29	85	26.8	36.1	31.4
Chewelah	17A04	4923	3/28	52	14.8	21.0	18.5
Heart Lake Trail	14C10	4800	4/2	77	30.0	28.7	23.4
Hoodoo Basin	15C10	6000	4/2	154	62.7	56.8	53.8
Hoodoo Creek	15C01	5900	4/2	146	58.4	51.7	50.3
Lookout	15B02	5250	3/12	103	34.6	36.5	35.6
			3/31	114	39.0	42.4	38.1
Mosquito Ridge	16A04A	5100	4/5	104	41.4	46.0	40.3
Nelson	19-Can	3050	3/30	51	16.3	20.1	15.7*
Schweitzer Bowl	16A06	4500	3/30	84	28.5	40.5	31.7
Schweitzer Ridge	16A05	6100	3/30	124	44.3	70.4	48.3
Smith Creek	16A01	4800	4/2	134	47.0	55.4	48.5
Winchester Creek	17A03	2970	3/29	31	10.6	15.4	11.8
KETTLE RIVER							
Barnes Creek	90-Can	5300	3/29	76	23.7	22.1	21.2*
Big White Mtn.	154-Can	5500	3/30	73	24.8	27.0	19.8*
Bluejoint Mtn.	244-Can	7500	3/21	89	32.1	-	New
Boulder Road	18A02	1450	3/29	9	3.1	4.3	2.6
Butte Creek	18A03	4070	3/29	35	8.9	12.3	10.1
Cabin Creek	18A08	3170	3/29	32	8.8	10.5	9.2
Carmi	126-Can	4100	3/30	28	8.4	11.4	6.3*
Farron # 1	17-Can	4000	3/30	48	14.0	15.3	13.4*
Farron # 2	243-Can	4000	3/30	49	13.3	16.2	New
Goat Creek	18A04	3595	3/29	25	7.8	9.0	6.0
Graystoke Lake	5-Can	5950	4/2	59	19.8	20.2	23.1*
Monashee Pass	48A-Can	4500	3/29	57	16.2	15.9	14.1*
Old Glory Mtn.	42-Can	7000	3/28	107	35.0	37.3	28.3*
Snow Caps Creek	18A05	2150	3/29	13	3.6	5.3	2.3
Snow Caps Trail	18A06	2720	3/29	21	6.8	7.1	5.7
Summit G. S.	18A07	4600	3/29	30	8.0	11.7	8.6
Trapping Creek Lower	166-Can	3050	3/30	22	6.8	8.6	3.3*
Trapping Creek Upper	165-Can	4450	3/30	43	13.2	15.4	9.5*

\# Average based on 1958-72 average
* Average for years of record

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO APRIL 1, 1976 - APPENDIX 2

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD Water Content (inches) Last Year	Average ‡
COLVILLE RIVER							
Baird	17A06	3215	3/28	20	7.5	11.8	5.7
Carlson	18A09	2885	3/28	9.6	2.6	9.6	2.6
Chewelah	17A04	4925	3/28	52	14.8	21.0	18.5
Stranger Mountain	17A05	4990	3/28	42	11.4	18.7	14.6
Togo	18A10	3370	3/28	43	12.4	20.0	12.5
SPOKANE RIVER							
Above Burke	15B08	4100	3/31	87	29.6	32.2	25.6
Above Roland	15B07	4350	4/2	102	41.3	40.9	35.8
Below Roland	15B06	3770	4/2	56	19.8	20.2	17.4
Copper Ridge	16B02	4800	3/29	89	31.6	38.0	30.1
Forty-nine Meadows	15B03	5000	4/5	90	29.6	30.6	34.9
Fourth of July Summit	16B03	3100	3/11	37	12.6	-	9.3
			3/26	39	13.6	13.7	7.8
Granite Peak	15B13A	6000	4/5	128	43.6	43.2	47.5
Kellogg Peak	16B05A	5560	4/2	103	37.9	40.4	34.7
Lookout	15B02	5250	3/12	103	34.6	-	35.6
			3/31	114	39.0	42.4	38.1
Lost Lake	15B14A	6000	4/5	164	56.2	63.2	62.1
Lower Sands Creek	16B01	3400	3/29	70	22.4	22.2	20.7
Medicine Ridge	15B04A	6150	4/5	140	47.4	43.8	48.1
Mosquito Ridge	16A04A	5110	4/5	104	41.4	46.0	40.3
Roland Summit	15B05A	5200	4/2	126	47.9	44.8	39.2
Sherwin	16C01	3200	3/31	58	18.7	20.8	13.8
Sunset	15B09A	5600	4/2	118	41.1	41.8	39.3
SANPOIL RIVER							
Sherman Creek Pass	18A01	5350	3/30	44	12.2	18.5	15.5
OKANOGAN RIVER							
Aberdeen Lake	6A-Can	4300	4/2	27	6.0	10.2	6.1*
Blackwall Mountain	100-Can	6250	3/31	121	47.8	35.4	35.3*
Bouleau Creek	31-Can	5000	3/31	40	12.2	17.9	12.0*
Bouleau Lake	234-Can	4580	3/31	59	20.0	22.2	16.3*
Brenda Mine	193-Can	4800	3/29	50	16.8	18.2	14.0
Brookmere	27-Can	3200	3/31	25	6.9	11.5	9.8*
Carrs Landing Upper	168-Can	3200	3/30	17	5.3	7.9	3.2*
Clark +	19A08a	7000	4/1	Not Measured		30.2	23.3
Enderby	130-Can	6250	3/29	134	41.5	47.3	38.9*

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

WSFB-X4-L

SNOW DATA TO APRIL 1, 1976 - APPENDIX 3

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
OKANOGAN RIVER (Cont.)							
Esperon Creek Lower	164-Can	4400	3/28	44	12.5	16.9	12.9*
Esperon Creek Middle	163-Can	4700	3/28	55	17.1	21.2	15.9*
Esperon Creek Upper	162-Can	5400	3/28	59	18.7	25.2	19.5*
Freezeout Meadows New	20A38	5000	3/30	112	41.7	43.0	29.9
Graystoke Lake	5-Can	5950	4/2	59	19.8	20.2	23.1*
Hamilton Hill	107-Can	4900	3/31	61	20.8	17.7	16.0*
Harts Pass	20A05A	6500	3/29	156	63.0	50.7	47.2
Horseshoe Basin +	19A05a	7000	4/1	62	18.6	23.7	13.5
Isintok Lake	152-Can	5510	3/31	35	9.6	11.6	8.1*
Lost Horse Mountain	105-Can	6300	4/1	42	10.0	-	9.1*
Loup Loup	19A07	4650	3/29	23	7.1	12.3	9.3
McCulloch	4-Can	4200	3/30	31	8.8	9.3	6.7*
Missezula Mountain	106-Can	5100	3/30	40	11.1	12.9	8.4*
Mission Creek	5A-Can	6000	3/25	77	23.2	25.3	20.0*
Monashee Pass	48A-Can	4500	3/29	57	16.2	15.9	14.1*
Mount Kobau	156-Can	5950	4/1	46	10.8	14.9	13.6*
Muckamuck +	19A09a	6390	4/1	54	16.2	19.8	17.8
Mutton Creek No. 1	19A01	5700	3/31	35	10.1	16.4	14.2
Mutton Creek No. 2	19A04	6000	3/31	43	11.1	15.6	15.4
Mutton Creek No. 2 SP	19A11SP	6000	3/31	-	8.4	12.5	New
New Copper Mountain	46A-Can	4300	3/29	23	6.3	7.0	5.3*
New Penticton Res. #2	183-Can	5225	3/30	37	9.1	9.6	8.8*
Nickel Plate Mtn.	47-Can	6200	3/31	43	11.3	11.6	7.9*
Oyama Lake	203-Can	4400		Late Report		9.8	7.5*
Paysayten +	20A28a	4300	4/1	60	18.0	23.7	16.0
Postill Lake	55-Can	4500	3/31	35	11.1	12.4	8.9*
Quartette Lake	34-Can	4000	3/29	61	19.2	11.3	15.1*
Rusty Creek	19A03	4000	3/29	13	4.2	9.5	7.0
Salmon Meadows	19A02	4500	3/29	26	7.7	11.2	10.3
Silver Star Mountain	99-Can	6050	3/29	100	38.0	37.1	27.7*
Starvation Mtn.+	19A10a	6750	4/1	68	20.4	23.4	21.9
Summerland Reservoir	3A-Can	4200	3/31	39	11.9	15.2	9.3*
Touts Coulee	19A06	2845	3/30	4	1.4	4.5	1.1
Trout Creek	3-Can	4700	3/30	38	10.6	12.1	7.5*
Vaseux Creek	233-Can	4600	3/27	28	5.9	8.4	7.7*
White Rocks Mountain	70-Can	6000	3/30	70	23.7	36.5	22.9*
ENTIAT RIVER							
Blue Creek G. S.	20B28a	5425	3/29	156	60.8	47.9	New
Brief	20B19	1600	3/25	22	8.6	8.0	4.0
Entiat Meadows +	20A33a	4800	3/29	146	56.9	52.4	48.1
Entiat River Trail +	20A34a	3150	3/29	55	20.1	27.6	21.3
Four Mile Ridge +	20B27a	7000	3/29	111	43.3	38.0	-
Fox Camp +	20A36a	6510	3/29	197	76.8	58.5	59.0
Pope Ridge	20B20	4300	3/31	57	20.8	24.5	16.9

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
ENTIAT RIVER (Cont.)							
Pope Ridge SP	20B24SP	4300	3/31	-	19.8	-	-
Pugh Ridge +	20A32a	6400	3/29	121	47.2	36.8	39.6
Shady Pass	20A37	6200	3/30	107	41.6	35.7	-
Snow Brushy +	20A35a	3850	3/29	113	41.4	45.2	40.9
Tommy Creek +	20B21a	5300	3/29	92	35.9	31.9	27.1
METHOW RIVER							
Billy Goat Pass +	20A10a	6409	4/1	110	33.0	34.8	32.0
Dollar Watch +	20A29a	7000	4/1	96	28.8	32.9	29.3
Harts Pass	20A05A	6500	3/29	156	63.0	50.7	47.2
Horseshoe Basin +	19A05a	7000	4/1	62	18.6	23.7	13.5
Loup Loup	19A07	4650	3/29	23	7.1	12.3	9.3
Mutton Creek No. 1	19A01	5700	3/31	35	10.1	16.4	14.2
Mutton Creek No. 2	19A04	6000	3/31	43	11.1	15.6	15.4
Mutton Creek No. 2 SP	19A11SP	6000	3/31	-	8.4	12.5	New
Rusty Creek	19A03	4000	3/29	13	4.2	9.5	7.0
Salmon Meadows	19A02	4500	3/29	26	7.7	11.2	10.3
War Creek Pass +	20A31a	6500	4/1	Not Measured		-	43.5
CHELAN LAKE BASIN							
Cloudy Pass +	20A22a	6500	3/27	182	72.8	58.4	54.0
Greenwood Flat +	20A25a	3540	3/27	81	30.8	-	24.8
Little Meadows +	20A24a	5275	3/27	178	71.2	59.2	45.8
Lyman Lake	20A23A	5900	3/27	221	94.8	72.5	61.5
Park Creek Flat +	20A13a	2220	4/1	Not Measured		-	34.3
Park Creek Ridge	20A12A	4600	3/29	163	56.4	55.2	46.1
Petersons +	20A16a	3730	4/1	Not Measured		-	32.2
Rainy Pass	20A09	4780	3/26	161	54.2	46.4	41.6
Safety Harbor	20A30A	6300	4/1	102	35.7	-	29.9
War Creek Pass +	20A31a	6500	4/1	Not Measured		-	43.5
WENATCHEE RIVER							
Berne-Mill Creek	21B23	3170	3/12	85	30.8	37.3	-
			3/30	98	35.5	40.5	27.6
Berne-Mill Creek New SP	21B41SP	3240	3/30	76	29.8	36.2	23.3
Blewett Pass No. 2	20B02	4270	3/29	56	18.6	21.1	16.5
Chiwaukum G. S.	20B16	1810	3/12	44	13.6	13.6	-
			3/30	38	11.8	12.2	10.5
Fish Lake	21B04	3371	3/29	127	35.5	43.5	35.1
Lake Wenatchee	20B05	1970	3/12	53	18.9	18.4	-
			3/30	52	20.3	16.6	11.9

\# Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 5

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average + #
WENATCHEE RIVER (Cont.)							
Leavenworth R. S.	20B17	1127	3/15	5.4	2.0	3.4	-
			3/30	0	0.0	0.0	0.7
Lyman Lake	20A23A	5900	3/27	221	94.8	72.5	61.5
Merritt	20B18	2140	3/12	48	18.0	22.3	-
			3/30	52	19.4	23.2	14.9
Stevens Pass	21B01	4070	3/12	142	57.3	61.8	50.8
			3/30	170	63.8	64.7	53.7
Stevens Pass Sand Shed	21B45	3700	3/12	100	39.3	42.8	-
			3/30	126	46.7	49.0	-
SQUILCHUCK CREEK							
Beehive Springs	20B03	4400	3/30	13	5.1	12.0	7.8
Scout-A-Vista	20B04	3400	3/30	22	6.8	12.3	6.9
STEMILT CREEK							
Jump-Off	20B08	4450	3/29	22	7.6	13.4	8.0
Stemilt Slide	20B06	5000	3/29	44	14.3	18.7	15.5
Upper Wheeler	20B07	4400	3/29	17	6.9	15.7	9.0
COLOCKUM CREEK							
Colockum Creek Upper	20B22	5300	3/29	18	7.8	19.5	-
Colockum Creek Lower	20B23	4300	3/29	23	7.8	12.2	-
Trough # 2	20B25SP	5310	3/29	24	8.7	New	New
YAKIMA RIVER							
Ahtanum R. S.	21C11	3100	3/25	18	5.6	13.0	5.2
Big Boulder Creek	21B09	3200	3/29	73	25.7	27.7	18.0
Blewett Pass No. 2	20B02	4270	3/39	56	18.6	21.1	16.5
Bumping Lake	21C08	3450	3/15	54	16.5	21.6	16.9
			3/31	57	18.9	20.9	16.2
Bumping Lake New	21C36	3400	3/15	67	22.1	27.9	21.4
			3/31	72	24.1	26.5	20.7
Cayuse Pass	21C06	5300	3/29	257	101.9	97.9	90.2
Colockum Pass	20B09	5370	4/1	41	13.6	18.9	17.4
Cooke Creek	20B10	4123	4/1	12	3.6	11.6	5.1
Corral Pass	21B13	6000	4/1	Not Measured		54.9	41.6
Fish Lake	21B04	3371	3/29	127	35.5	43.5	35.1
Green Lake	21C10	6000	3/24	110	32.3	36.3	36.2

Average based on 1958-72 average

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 6

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average + #
YAKIMA RIVER (Cont.)							
Grouse Camp	20B11	5385	3/31	53	17.6	-	17.1
High Creek	20B12	2930	3/31	22	7.3	7.4	2.3
Joe Lake	21B46a	4624	3/29	Marker Buried		86.8	-
Lake Cle Elum	21B14M	2200	3/17	36	13.4	13.4	7.8
			3/30	37	14.6	14.2	4.5
Lemah Creek +	21B47a	3327	3/29	144	50.4	56.2	-
Manashtash	20C01	3935	3/30	10	3.9	8.2	2.2
Morse Lake	21C17	5400	3/31	158	57.6	68.6	61.9
Nanum	20B13	2340	3/31	31	10.3	12.2	8.2
Olallie Meadows	21B02	3625	4/2	153	57.8	59.4	48.8
Satus Pass	20D01	4030	3/31	30	10.4	16.6	8.6
Stampede Pass SP	21B10	3860	3/16	-	41.2	56.6	41.2
			3/30	-	49.4	57.2	43.4
Trail Creek	20B14	3360	4/1	0	0.0	0.0	0.1
Tunnel Avenue	21B08	2450	3/15	70	25.2	33.0	24.0
			3/29	88	32.4	35.6	24.1
Van Epps Pass +	20B26a	5925	3/29	170	47.6	52.6	-
Walters Flat	20B15	3360	3/31	21	7.4	10.4	5.3
Waptus Lake +	21B49a	3024	3/29	135	47.2	52.4	-
White Pass (E. Side)	21C28	4500	3/16	75	24.1	30.6	24.7
			3/29	93	28.4	32.4	25.9
White Pass (L. Lake)	21C27	4500	3/29	98	31.7	37.9	31.1
AHTANUM CREEK							
Ahtanum R. S.	21C11	3100	3/25	18	5.6	13.0	5.2
Green Lake	21C10	6000	3/24	110	32.3	36.3	36.2
L O W E R C O L U M B I A D R A I N A G E							
ASOTIN CREEK							
Spruce Springs	17C04	5700	3/24	82	29.1	31.1	26.6
MILL CREEK							
Homestead	17C01	4030	3/31	35	12.3	13.9	7.3
Martin Springs	17C02	4400	3/31	58	20.5	18.4	14.2
Tollgate	18D3M	5070	3/29	101	36.8	30.7	25.1
KLICKITAT RIVER							
Satus Pass	20D01	4030	3/31	30	10.4	16.6	8.6

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 7

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
WHITE SALMON RIVER							
Cultus Creek	21C12	4000	3/29	153	54.9	51.4	49.4
Surprise Lakes	21C13A	4250	3/29	156	56.5	59.7	53.9
WIND RIVER							
Old Man Pass	21D19	3100	3/29	81	27.3	20.3	19.7
LEWIS RIVER							
Blue Lake +	21C22a	4800	3/29	266	95.8	99.2	84.8
Bob's Trail	21C21	2200	3/30	64	24.5	15.5	15.1
Calamity Ridge +	22D01a	2500	3/29	35	12.2	7.0	5.6
Council Pass +	21C18a	4200	3/29	152	54.7	51.5	42.9
Cultus Creek	21C12	4000	3/29	153	54.9	51.4	49.4
Divide Meadow +	21C29a	5600	3/29	181	65.2	66.3	60.6
Grand Meadow	21C25	3500	3/29	92	33.5	32.3	27.7
Lone Pine Shelter	21C26	3800	3/28	155	55.1	44.9	43.3
Marble Mountain +	22C05a	3200	3/29	136	54.4	34.0	38.2
Mosquito Meadows	21C19	4100	3/28	163	57.8	45.3	44.9
New Muddy River	22C06	2000	3/30	37	15.7	5.7	9.5
Old Man Pass	21D19	3100	3/29	81	27.3	20.3	19.7
Plains of Abraham +	22C01a	4400	3/29	182	65.5	73.3	71.8
Smith Creek Road	22C04	2100	3/30	44	18.7	17.1	17.7
Spencer Meadow +	21C20a	3400	3/29	106	38.2	28.1	25.7
Surprise Lakes	21C13A	4250	3/29	156	56.5	59.7	53.9
Table Mountain +	21C24a	4200	3/29	160	57.6	58.5	48.8
Timbered Peak +	21D18a	3000	3/29	90	30.6	20.3	17.8
COWLITZ RIVER							
Cayuse Pass	21C06	5300	3/29	257	101.9	97.9	90.2
Mosquito Meadows	21C19	4100	3/28	163	57.8	45.3	44.9
Ohanapecosh	21C32	2200	3/29	63	26.9	22.6	15.7
Packwood Lake	21C31	2870	3/26	63	21.8	16.6	13.1
Pigtail Peak	21C33	5900	3/29	216	82.3	70.7	64.7
Plains of Abraham +	22C01a	4400	3/29	182	65.5	73.3	71.8
Potato Hill	21C14	4500	3/30	110	39.6	42.4	33.3
White Pass (E. Side)	21C28	4500	3/16	75	24.1	30.6	24.7
			3/29	93	28.4	32.4	25.9
White Pass (L. Lake)	21C27	4500	3/29	98	31.7	37.9	31.1
Willame Creek	21C30	3250	3/26	120	41.5	36.0	31.4

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 8

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
PUGET SOUND DRAINAGE							
NISQUALLY RIVER							
Ghost Forest	21C04	4550	3/31	164	59.5	55.7	48.0
Longmire	21C03	2760	3/31	46	16.7	15.3	10.2
New Paradise Park	21C35	5500	3/31	218	88.0	91.0	74.1
Stem Glade	21C01	5050	3/31	221	84.9	85.1	73.4
WHITE RIVER							
Cayuse Pass	21C06	5300	3/29	257	101.9	97.9	90.2
Corral Pass	21B13	6000	4/1	Not Measured		54.9	41.6
Morse Lake	21C17	5400	3/31	158	57.6	68.6	61.9
GREEN RIVER							
Airstrip	21B24	1800	3/27	17	5.6	10.2	1.3
Charley Creek	21B25	1200	3/27	0	0.0	0.0	0.0
Cougar Mountain SP	21B42SP	3200		Late Report		33.0	-
Grass Mtn. No. 2	21B27	2900	3/27	49	15.8	26.0	24.4
Grass Mtn. No. 3	21B28	2100	3/27	20	5.0	13.7	4.4
Lester Creek	21B29	3100	3/27	98	31.4	34.4	27.0
Lynn Lake	21B50	4000	3/27	67	26.0	31.3	-
Sawmill Ridge	21B31	4700	3/27	148	50.2	47.8	41.5
Snowshoe Butte SP	21B43SP	5000		Late Report		69.4	-
Stampede Pass SP	21B10	3860	3/16	-	41.2	56.6	41.2
			3/30	-	49.2	57.2	43.4
Twin Camp	21B30	4100	3/27	89	30.2	35.5	25.9
CEDAR RIVER							
City Cabin	21B03	2390	3/30	66	24.8	26.6	15.5
Mt. Gardner	21B21	3300	3/30	58	22.8	26.1	18.0
Mt. Lindsay	21B16	2500	3/30	49	16.8	23.3	15.9
Mt. Washington	21B15	3000	3/29	40	13.8	16.1	7.5
Rex River	21B17	2400	3/30	74	29.4	28.4	13.5
S. F. Cedar	21B06	3000	3/30	78	25.8	34.0	20.6
Tinkham Creek	21B20	3400	3/30	87	31.6	40.0	23.7
SNOQUALMIE RIVER							
Alpine Meadow	21B48	3500	3/30	185	69.1	56.0	-
Lake Elizabeth	21B19	2900	3/30	153	55.6	47.6	48.5
Olallie Meadows	21B02	3625	4/2	153	57.8	59.4	48.8
S. F. Tolt	21B18	1900	3/31	18	6.4	4.2	0.8

Average based on 1958-72 average

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 9

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Average #
SKYKOMISH RIVER							
Lake Elizabeth	21B19	2900	3/30	153	55.6	47.6	48.5
Stevens Pass	21B01	4070	3/12	142	57.3	61.8	50.8
			3/30	170	63.8	64.7	53.7
Stevens Pass Sand Shed	21B45	3700	3/12	100	39.3	42.8	-
			3/30	126	46.7	49.0	-
SKAGIT RIVER							
Beaver Creek Trail	21A04	2200	3/30	62	25.5	22.8	12.6
Beaver Pass	21A01	3680	3/30	116	43.9	34.6	33.7
Brown Top	21A28a	6000	4/3	214	95.0	71.8	-
Cloudy Pass	20A22a	6500	3/27	182	72.8	58.4	54.0
Devils Park	20A04	5900	4/3	158	65.8	51.0	45.6
Freezeout Cr. Trail	20A01	3500	3/30	52	17.6	15.4	12.5
Freezeout Meadows New	20A38	5000	3/30	112	41.7	43.0	29.9
Granite Creek	21A29	3500	3/26	85	27.4	22.2	-
Harts Pass	20A05A	6500	3/29	156	63.0	50.7	47.2
Klesilkwa	35B-Can	3700		Late Report		21.6	15.3*
Lyman Lake +	20A23A	5900	3/27	221	94.8	72.5	61.5
Meadow Cabins	20A08	1900	3/26	35	12.8	10.1	6.0
New Hozomeen Lake	21A30	2800	3/30	55	18.3	16.0	-
New Tashme	26A-Can	2500	3/30	49	18.6	16.9	10.8*
Quartette Lake	34-Can	4000	3/29	61	19.2	11.3	15.1*
Rainy	20A09	4780	3/26	161	54.2	46.4	41.6
Thunder Basin	20A07	4200	3/26	88	24.9	39.2	23.9
BAKER RIVER							
Baker Pass +	21A27a	4900	3/15	222	95.0	-	-
			4/1	276	115.9	89.6	-
Dock Butte	21A11A	3800	3/15	192	82.0	-	74.3
			4/2	226	96.6	74.8	71.3
Easy Pass	21A07A	5200	3/15	206	88.0	-	79.1
			4/1	272	121.8	96.0	87.0
Jasper Pass	21A06A	5400	3/15	252	108.0	-	83.5
			4/1	293	122.8	96.0	93.6
Komo Kulshan	21A17	800	4/2	23	10.1	10.3	6.0
Marten Lake	21A09A	3600	3/15	240	103.0	-	72.0
			4/2	256	108.7	80.2	78.1
Mount Blum +	21A18a	5800	3/15	172	74.0	-	-
			4/1	204	85.7	71.2	-

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO APRIL 1, 1976 - APPENDIX 10

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
BAKER RIVER (Cont.)							
Panorama New	21A26	4300	3/14	177	76.8	73.2	-
			4/2	210	86.9	70.7	-
Rocky Creek	21A12A	2100	3/15	104	45.0	-	28.7
			4/2	125	49.4	39.0	29.2
Schreibers Meadow	21A10A	3400	3/15	152	65.0	-	57.3
			4/2	206	85.8	71.4	65.6
S. F. Thunder Creek	21A14A	2200	3/15	34	15.0	-	9.4
			4/2	44	18.4	13.9	5.3
Sulphur Creek	21A13	1600	4/2	66	28.1	19.4	13.6
Three Mile Creek	21A15	4500	4/2	7	2.9	1.2	1.7
Watson Lakes	21A08A	4500	3/15	164	70.0	-	61.1
			4/1	214	83.4	67.6	71.2
NOOKSACK RIVER							
Bald Mountain +	21A19a	4400	4/1	192	73.0	60.4	51.0
Canyon +	21A20a	5100	4/1	274	104.1	73.2	60.0
Glacier Creek	21A23	3700	4/1	Not Measured		30.4	23.4
Panorama New	21A26	4300	3/14	177	76.8	73.2	-
			4/2	210	86.9	70.7	-
Twin Lakes +	21A21a	5200	4/1	305	115.9	87.2	79.1
OLYMPIC PENINSULA							
MORSE CREEK							
Cox Valley	23B14	4500	3/30	166	57.2	43.5	-
ELWHA RIVER							
Hurricane	23B03	4500	3/29	109	33.3	26.7	26.1
SKOKOMISH RIVER							
Black & White	23B07	4200	3/27	170	51.8	49.2	45.6
Black & White Lakes	23B06	4700	3/27	197	69.2	71.8	68.7
Four Streams	23B10	3000	3/27	121	38.8	41.2	34.7
Home Sweet Home	23B05	5200	3/27	267	95.5	82.7	80.6

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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SOIL CONSERVATION SERVICE
ROOM 360, U.S. COURT HOUSE
SPOKANE, WASHINGTON 99201

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"The Conservation of Water begins with the Snow Survey"

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WATER SUPPLY OUTLOOK FOR WASHINGTON

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U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
MAY 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snawfall. This snowfall accumulates during the winter and spring, several months befare the snow melts and appears as streamflow. Since the runaff fram precipitation as snow is delayed, estimates af snawmelt runaff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mauntain snowpack.

Forecasts become more accurate as mare af the data affecting runoff are measured. All farecasts assume that climatic factors during the remainder af the snaw accumulation and melt season will interact with a resultant average effect an runaff. Early seasan forecasts are therefare subject ta a greater change than thase made an later dates.

The snaw caurse measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mauntain areas. A tatal of about ten samples are taken at each lacation. The average af these are reported as snow depth and water equivalent. These measurements are repeated in the same lacatian near the same dates each year.

Snaw surveys are made monthly ar semi-manthly from January 1 through June 1 in mast states. There are abaut 1900 snow caurses in Western United States and in the Calumbia Basin in British Columbia. Networks of autamatic snow water equivalent and related data sensing devices, alang with radia telemetry are expanding and will provide a cantinuaus record of snow water and ather parameters at key locatians.

Detailed data on snow course and sail maisture measurements are presented in state and local reports. Other data on reservair starage, summaries of precipitation, current streamflow, and soil moisture canditions at valley elevations are also included. The repart far Western United States presents a braad picture of water supply outlaak conditions, including selected streamflow forecasts, summary af snow accumulatian ta date, and storage in larger reservoirs.

Snow survey and soil maisture data for the periad af record are published by the Soil Conservatian Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reparts fallawing the principal snaw survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained fram Sail Conservation Service, West Technical Service Center, Raom 111, 511 N.W. Broadway, Partland, Oregan 97209.

Capies af state and lacal reparts may alsa be abtained from state offices of the Sail Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Raam 217, Ancharage, Alaska 99501
Arizana	6029 Federal Building, Phaenix, Arizana 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Raom 345, 304 N. 8th. St., Baise, Idaho 83702
Montana	P.O. Box 98, Bazeman, Mantana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washingtan	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Bax 2440, Casper, Wyaming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlaak reparts prepared by other agencies include a repart far Califarnia by the Water Supply Farecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resaurces, Water Resources Service, Parliament Building, Victaria, British Calumbia

USDA-SCS-PORTLAND, OREG.-1979

WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS

ADMINISTRATOR
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WASHINGTON, D C

Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

JOHN A. BIGGS

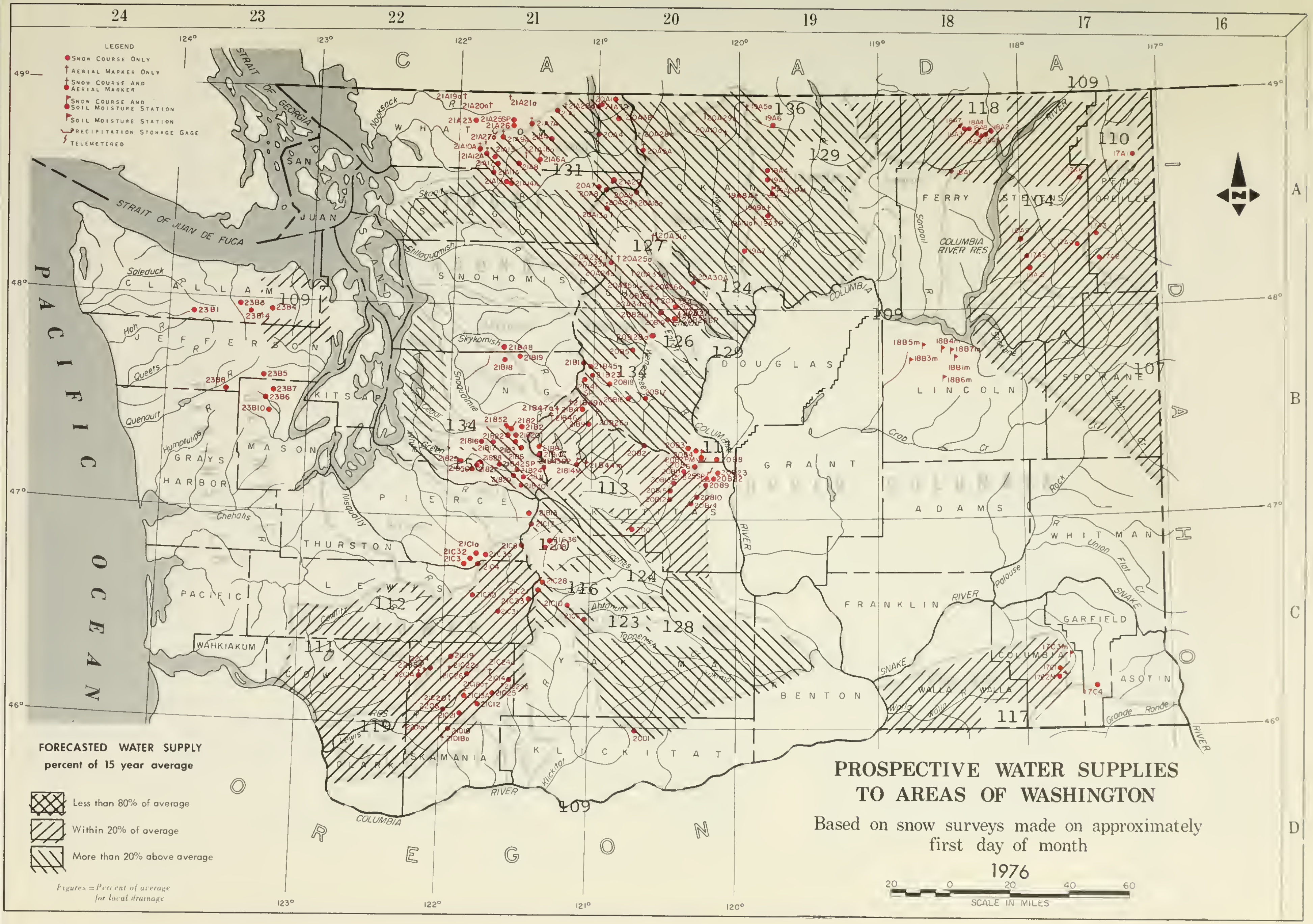
DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201

USDA-SCS-PORTLAND, OREG 1979



PROSPECTIVE WATER SUPPLIES TO AREAS OF WASHINGTON

Based on snow surveys made on approximately first day of month

1976

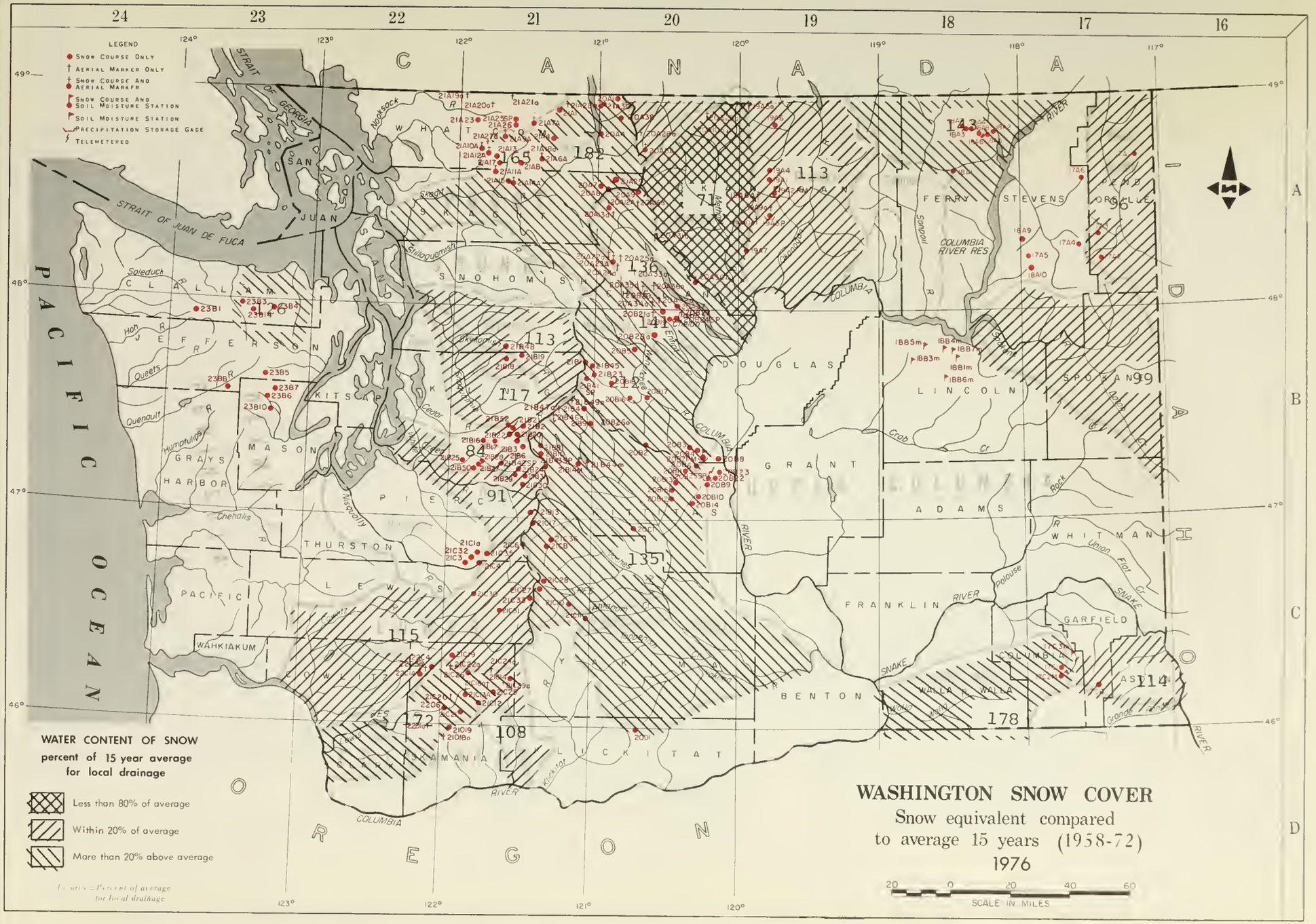
INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
UPPER COLUMBIA DRAINAGE					
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A8	S	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A1D	6	29N	38E	3370
Sanpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5350
Okanogan River					
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845
Methow River					
Billy Goat Pass	20A10a	10	38N	2DE	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650
Chelan Lake Basin					
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	5900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500
Entiat River					
Blue Creek G.S.	20828a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	1	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20B245P	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20B21a	10	28N	18E	5300
Wenatchee River					
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700
Wenotchee River (continued)					
Trough #2	20825SP	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20822	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	2084	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	2086	30	21N	20E	5000
Upper Wheeler	2087PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	1881m	32	27N	34E	2440
Jack Woods	18B3m	28	27N	31E	2750
Krause	1884m	21	27N	33E	2420
Sheffels	1885m	17	27N	32E	2378
Sherman	1887m	24	27N	33E	2440
Wheatridge	1886m	24	25N	32E	2290
Yakima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	2189	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20810	17	19N	20E	4123
Domery Flat	21B44m	15	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	2930
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21814M	15	20N	14E	2200
Lemah Creek	21B47a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21849a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500
LOWER COLUMBIA DRAINAGE					
Asotin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400
Klickitat River					
Satus Pass	2001	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	22D1a	8	5N	5E	2500
Council Pass	21C18a	24	9N	9E	4200
Lewis River (continued)					
Divide Meadow	21C29a	21	9N	10E	5600
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	9N	7E	3800
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	2000
Oldman Pass	21D19	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21018a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250
PUGET SOUND DRAINAGE					
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C35	13	15N	8E	5500
Stem Glade	21C1	13	15N	8E	5050
White River					
Corral Pass	21B13	30	18N	11E	6000
Green River					
Airstrip	21B24	18	20N	11E	1800
Charley Creek	2182S	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21829	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21831	5	19N	11E	4700
Snowshoe Butte	21B435P	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3860
Twin Camp	2183D	18	19N	11E	4100
Cedar River					
City Cabin	2183	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21852	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21820	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21848	31	27N	9E	3500
Dlallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B18	26	26N	9E	1900
Skykomish River					
Lake Elizabeth	21819	33	26N	10E	2900
Skagit River					
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksack River					
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200
OLYMPIC PENINSULA					
Dungeness River					
Deer Park	23B4	1	28N	SW	5200
Morse Creek					
Cox Valley	23B14	31	29N	6W	4500
Elwho River					
Hurricane	23B3	36	29N	7W	4500
Skokomish River					
Black and White	23B7	17	24N	5W	4200
Black and White Lakes	23B6	16	24N	5W	4700
Four Stream	23B10	1	23N	6W	3000
Home Sweet Home	2385	28	25N	5W	5200
Sundown Pass	2388	25	24N	7W	3900
Soleduck River					
Deer Lake	2381	14	28N	9W	3900

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7 Snow Course Only
21A7a Aerial Marker Only
21A7A Snow Course and Aerial Marker
21A7M Snow Course and Soil Moisture Station
21A7m Soil Moisture Station
21A7P Snow Course and Precipitation Storage Gage
21A7p Precipitation Storage Gage
21A7SP Snow Pillow



LEGEND
Snow Course Only
Aerial Marker Only
Snow Course And Aerial Marker
Snow Course And Soil Moisture Station
Soil Moisture Station
Precipitation Storage Gage
Telemetered
WATER CONTENT OF SNOW
percent of 15 year average
for local drainage
Less than 80% of average
Within 20% of average
More than 20% above average
Figures = Percent of average for local drainage
WASHINGTON SNOW COVER
Snow equivalent compared
to average 15 years (1958-72)
1976
SCALE IN MILES
CANADA
OREGON
PACIFIC OCEAN
STRAIT OF JUAN DE FUCA
STRAIT OF GEORGIA
COLUMBIA RIVER RES
SAN JUAN
WHATCOM
SKAGIT
SNOHOMISH
CHELAN
OKANOGAN
FERRY
STEVENS
PEND OREILLE
CLALLAM
JEFFERSON
KITSAP
KING
DOUGLAS
LINCOLN
SPOKANE
GRAYS HARBOR
MASON
PIERCE
KITTITAS
GRANT
ADAMS
WHITMAN
THURSTON
LEWIS
PACIFIC
WAHKIAKUM
COWLITZ
YAKIMA
FRANKLIN
GARFIELD
COLUMBIA
ASOTIN
BENTON
WALLA WALLA
CLARK
SKAMANIA
KLICKITAT
COLUMBIA RIVER
SNAKE RIVER

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

UPPER COLUMBIA DRAINAGE

Pend Oreille River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Boyer Mountain	17A2	7	31N	43E	S250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970

Kettle River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Boulder Road	18A2	36	39N	36E	14S0
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18AB	5	38N	36E	3170
Goat Creek	18A4	26	39N	35E	3595
Snow Caps Creek	18A5	3	38N	36E	2150
Snow Caps Trail	18A6	S	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600

Colville River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Baird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chewelah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	38E	3370

Sanpoil River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Sherman Creek Pass	18A1	19	36N	35E	S350

Okanogan River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Clark	19A8a	2	36N	23E	7000
Muckamuck	19A9a	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	S700
Mutton Creek No. 2	19A4	19	37N	24E	6000
Paysayten	20A28a	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10a	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845

Methow River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Billy Goat Pass	20A10a	10	38N	20E	6400
Dollar Watch	20A29a	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5a	15	40N	23E	7000
Loup Loup	19A7	36	34N	23E	4650

Chelan Lake Basin

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cloudy Pass	20A22a	12	31N	15E	6500
Greenwood Flat	20A25a	3	31N	16E	3540
Little Meadows	20A24a	8	31N	16E	5275
Lyman Lake	20A23a	18	31N	16E	S900
Park Creek Flat	20A13a	19	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16a	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31a	34	33N	18E	6500

Entiat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Blue Creek G.S.	20B28a	19	28N	18E	5425
Brief	20B19	34	28N	19E	1600
Entiat Meadows	20A33a	28	31N	17E	4800
Entiat River Trail	20A34a	2	29N	17E	3150
Four Mile Ridge	20B27a	15	28N	19E	7000
Fox Camp	20A36a	17	30N	18E	6510
Pope Ridge	20B20	22	29N	18E	4300
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300
Pugh Ridge	20A32a	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35a	21	30N	17E	3850
Tommy Creek	20B21a	10	28N	18E	5300

Wenatchee River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4070
Stevens Pass Sand Shed	21B45	12	26N	19E	3700

Wenatchee River (continued)

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Trough #2	20B25SP	10	20N	20E	5310

Colockum Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Colockum Creek Upper	20B22	11	20N	20E	S300
Colockum Creek Lower	20B23	1	20N	20E	4300

Squilchuck Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Beehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	2084	18	21N	20E	3400

Stemilt Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	2087PM	30	21N	20E	4400

Crab Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Creston-Kunz	18B1m	32	27N	34E	2440
Jack Woods	1883m	28	27N	31E	27S0
Krause	1884m	21	27N	33E	2420
Sheffels	1BB5m	17	27N	32E	2378
Sherman	1BB7m	24	27N	33E	2440
Wheatridge	18B6m	24	25N	32E	2290

Yakima River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Ahtanum R. S.	21C11	24	12N	14E	3100
Big Boulder Creek	2189	3S	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	2089	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Oomery Flat	21844m	15	20N	14E	2200
Fish Lake	2184	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	293C
Joe Lake	21B46a	22	23N	12E	4624
Lake Cle Elum	21814M	15	20N	14E	2200
Lemah Creek	21847a	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	387S
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26a	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3360
Waptus Lake	21B49a	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500

LOWER COLUMBIA DRAINAGE

Asotin Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Spruce Springs	17C4	9	8N	40E	5700

Mill Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2M	23	9N	40E	4400

Klickitat River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Satus Pass	2001	21	6N	17E	4030

White Solmon River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cultus Creek	21C12	35	7N	8E	4000

Lewis River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Blue Lake	21C22a	19	9N	8E	4800
Bob's Trail	21C21	2S	8N	7E	2200
Calamity Ridge	2201a	8	5N	5E	2S00
Council Pass	21C18a	24	9N	9E	4200

Lewis River (continued)

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Divide Meadow	21C29a	21	9N	10E	560C
Grand Meadow	21C25	28	8N	9E	3S00
Lone Pine Shelter	21C26	8	9N	7E	3800
Marble Mountain	22C5a	24	8N	5E	3200
New Muddy River	22C6	36	8N	6E	200C
Oldman Pass	21019	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	9N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21018a	36	6N	6E	3000

Cowlitz River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cayuse Pass	21C6	1S	16N	10E	5300
Mosquito Meadows	21C19	33	10N	7E	4100
Ohanapecosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2870
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250

PUGET SOUND DRAINAGE

Nisqually River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C3S	13	15N	8E	5500
Stem Glade	21C1	13	15N	8E	5050

White River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Corral Pass	21B13	30	18N	11E	6000

Green River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Airstrip	21824	18	20N	11E	1800
Charley Creek	21B25	27	21N	8E	1200
Cougar Mountain	21B42SP	21	21N	9E	3200
Grass Mountain No. 2	21827	14	20N	8E	2900
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21829	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B43SP	14	20N	11E	S000
Stampede Pass	21810	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100

Cedar River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
City Cabin	2183	10	21N	10E	2390
Mt. Gardner	21821	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2S00
Mt. Washington New	21B52	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400

Snoqualmie River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Alpine Meadow	21B48	31	27N	9E	3S00
Olallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B18	26	26N	9E	1900

Skykomish River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Lake Elizabeth	21B19	33	26N	10E	2900

Skagit River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Beaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezeout Creek Trail	20A1	14	40N	14E	3500
Freezeout Meadow New	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hozomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200

Baker River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kulshan	21A17	31	37N	9E	800
Marten Lake	21A9A	23	38N	8E	3600
Mount Blum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A1S	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500

Nooksock River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Bald Mountain	21A19a	7	40N	7E	4400
Canyon	21A20A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16	40N	9E	5200

OLYMPIC PENINSULA

Dungeness River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Deer Park	2384	1	28N	5W	S200

Morse Creek

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Cox Valley	23B14	31	29N	6W	4500

Elwha River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Hurricane	23B3	36	29N	7W	4500

Skokomish River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Black and White	2387	17	24N	5W	4200
Black and White Lakes	23B6	16	24N	5W	4700
Four Stream	23B10	1	23N	6W	3000
Home Sweet Home	23B5	28	25N	5W	5200
Sundown Pass	23B8	25	24N	7W	3900

Soleduck River

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Deer Lake	23B1	14	28N	9W	3900

LEGEND

(A NUMBERING SYSTEM EXAMPLE)

21A7 Snow Course Only

21A7a Alpine Marker Only

21A7A Snow Course and Alpine Marker

21A7M Snow Course and Soil Moisture Station

21A7m Soil Moisture Station

21A7P Snow Course and Precipitation Storage Gage

21A7p Precipitation Storage Gage

21A7SP Snow Pillow

WATER SUPPLY OUTLOOK

State of Washington

May 1, 1976

The situation as of May 1, 1976 is very similar to that which we were reporting last year at this time. It now appears that the state of Washington will enjoy another irrigation season without fear of water shortages and the situation with regards to damaging high flows is not too great over most of the state. There are a few locations where the National Weather Service is forecasting a 50-50 chance that the river stage will exceed flood stage in the following month, but this high flow is not expected to be very severe this year. High water is predominately based upon temperature and precipitation which we can expect during the month of May and up through the first part of June. If it so happens that precipitation is well above normal and the temperature also above normal, then damaging flows will most certainly occur, but that is not being forecast as of this date. If the precipitation that occurred during April is any indication of what we can expect during May, then we don't have any worries at all. In fact, if that occurred, it is doubtful that these streams would even reach flood stage. Rainfall was below normal in all drainage divisions, as reported by the National Weather Service, except for the northeastern portion of the state and that, only 8 percent above average. Runoff during the month was mixed, with the main stem having 12 to 17 percent above normal flows except at The Dalles, which was 26 percent above. This is a result of increased outflow of the Snake River Basin. Tributary streams were generally below normal where the watersheds started at high elevations, but in the low elevation watersheds,such as the Palouse and Walla Walla, flows were well above normal,80 and 54 percent, respectively. As a result of this mix up of outflows during April, subsequent water supply forecasts for the May-September period have been altered slightly - some up,some down - but overall the situation is very similar to that which was reported last month.

SNOW COVER

We have, generally, an excellent snow cover over the state of Washington and tributary drainage areas with, again, minor exceptions. For those locations with a predominance of low elevation snow courses, snow cover ranges from a low of 29 percent below for the Methow River, to a high of 112 percent above for the Wenatchee.

SNOW COVER (Cont.)

The break down by major basin areas indicates the snow cover to be 4 percent below average in the Pend Oreille Drainage, 43 percent above in the Kettle, 1 percent below in the Spokane Drainage of northern Idaho, 13 percent above normal in the Okanogan-Similkameen area, 21 percent below, as previously reported, on the Methow, 36 percent above for the Chelan, as measured by only one snow course. The Entiat is reported to have a snow pack 41 percent above normal, the Yakima 35 percent above and the high point, Wenatchee, 212 percent of normal. Along the Lower Columbia, the snow pack on the Asotin Creek, as measured by one snow course, is 14 percent above normal, while Mill Creek Drainage is 78 percent above. The White Salmon, measured by two snow courses, has a snow cover that is 8 percent above normal and the Lewis, measured by seventeen snow courses, 72 percent above. The Cowlitz River, measured by five snow courses only, has a snow pack that is 15 percent above average. On the Puget Sound Drainage, the Skagit comes in with the greatest snow cover - 82 percent above normal, this measured by thirteen snow courses. The Baker, as measured by eleven snow courses, has a snow pack that is 65 percent above normal. The low point of these drainages is the White, measured by three snow courses only, and it, 9 percent below normal. Only one snow course in the Olympic Drainage has records that can be used for comparison to average and this, the one snow course on Elwha, indicates the snow pack to be 26 percent above average.

RESERVOIRS

The reservoir situation in the state is very good. The water is being managed to utilize it for the best possible runoff situation. Reservoirs with high forecasted inflow are being lowered to take care of the expected runoff without causing excessive damage. Irrigation reservoirs are being held to reduce damaging outflows, yet maintain a full head. Power reservoirs, such as Franklin D. Roosevelt, are very low for this time of year, but they can and will fill in short order with the spring runoff.

PRECIPITATION

Rainfall during April was all below normal except in the northeastern portion of the state. The Columbia in Canada was reported to have precipitation during the month 23 percent below average; the Pend Oreille-Spokane Drainage, 5 percent below average; the northeastern portion of the state, 8 percent above; the southeastern portion of the state, 1 percent below; central Washington, 15 percent below average; and the northcentral area, 44 percent below average. On the west slopes of the Cascades, the northwestern slopes were reported to have 23 percent below average and the southwestern slopes, 19 percent below.

STREAMFLOW

During the month of April, as previously reported, flows ranged from a high of 80 percent above normal to a low of 13 percent below, with the main stem of the Columbia, 12 to 26 percent above average. Forecasts have not been altered much, percentagewise, from that which was reported last month and currently range from a low of 4 percent above normal for the Colville River, as measured at Kettle Falls, to a high of 50 percent above normal on the Green River system. Numerical forecasts can be found following this narrative.

STREAMFLOW FORECASTS - MAY, 1976

The following summarized runoff forecasts are based principally on mountain snowcover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1975 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Forecast period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
COLUMBIA BASIN							
COLUMBIA RIVER SYSTEM							
Columbia River	47400	109	May-Sept	39322	50321	32773	43490
at Birchbank 1/	38100	110	May-July	31167	40586	25853	34632
	27100	110	May-June	20668	27987	18180	24633
Columbia River	67700	109	May-Sept	62306	75369	41919	62110
at Grand Coulee 1/	56600	110	May-July	51684	63900	34263	51473
	43100	110	May-June	37148	47262	25956	39153
Columbia River	75400	111	May-Sept	69286	86002	44972	67890
bl. Rock Island Dam 1/	61900	109	May-July	58355	73543	37055	56790
	48000	111	May-June	42335	54309	27887	43202
Columbia River	99800	109	May-Sept	98825	119784	58016	91550
at The Dalles, OR 1/	83000	108	May-July	84141	103630	47114	76815
	66700	111	May-June	62891	79342	36249	60083
PEND OREILLE RIVER SYSTEM							
Pend Oreille River	15100	110	May-Sept	16544	18438	7226	13740
bl. Box Canyon	13600	109	May-July	14857	16990	6529	12471
	11400	108	May-June	11572	13619	5670	10561
KETTLE RIVER SYSTEM							
Kettle River	1900	118	May-Sept	1747	2330	992	1614
nr. Laurier	1800	117	May-July	1665	2251	964	1534
	1600	116	May-June	1479	1975	892	1381
Colville River	95	104	May-Sept		164	32	91
at Kettle Falls	83	104	May-July		147	29	80
	73	103	May-June		130	27	71

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Fore-cast period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
SPOKANE RIVER SYSTEM *							
Spokane River	2160	107	May-Sept	2611	3389	778	2010
at Post Falls, ID 2/	2060	107	May-July	2467	3271	720	1926
	1900	106	May-June	2259	2998	660	1800
OKANOGAN RIVER SYSTEM							
Similkameen River	1938	136	May-Sept	1398	2094	688	1425
nr. Nighthawk	1786	134	May-July	1303	1970	649	1333
	1538	136	May-June	1057	1588	573	1131
Okanogan River	2050	129	May-Sept	1464	2511	704	1587
nr. Tonasket	1830	127	May-July	1319	2288	646	1446
	1540	127	May-June	1063	1784	561	1213
METHOW RIVER SYSTEM							
Methow River	1170	124	May-Sept		1517	466	946
nr. Pateros	1080	123	May-July		1407	430	879
	910	122	May-June		1120	370	748
CHELAN RIVER SYSTEM							
Chelan River	1470	129	May-Sept	1295	1610	702	1139
at Chelan 3/	1290	129	May-July	1143	1369	605	999
	980	128	May-June	783	963	469	767
Stehekin River	1050	127	May-Sept		1153	490	830
at Stehekin	905	129	May-July		926	396	702
	685	130	May-June		648	301	526
Entiat	280	126	May-Sept		364	132	223
nr. Ardenvoir	256	126	May-July		323	118	204
	210	127	May-June		232	99	165

* Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.

2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Forecast period	Seasonal Streamflow in Thousands of Acre-Feet 1975	1974	1973	15-Yr. Average 58-72
WENATCHEE RIVER SYSTEM							
Wenatchee River at Plain	1560	134	May-Sept	1316	1750	689	1165
	1400	135	May-July	1182	1492	608	1040
	1100	136	May-June	844	1028	488	809
Wenatchee River at Peshastin	2200	139	May-Sept	1805	2333	903	1583
	1970	138	May-July	1623	2008	808	1426
	1560	139	May-June	1164	1409	656	1121
Stemilt Basin nr. Wenatchee	150*	110	May-Sept				138*
YAKIMA RIVER SYSTEM							
Yakima River nr. Martin 4/	132	115	May-Sept	156	204	63	115
	121	116	May-July	142	187	55	104
	101	114	May-June	115	143	50	89
Yakima River at Cle Elum 5/	900	113	May-Sept	1020	1282	441	794
	820	116	May-July	920	1154	376	706
	690	116	May-June	750	886	319	593
Yakima River nr. Parker 6/	1700	128	May-Sept			415	1328
	1670	129	May-July			423	1298
	1480	126	May-June			432	1178
Kachess River nr. Easton 7/	116	116	May-Sept	141	179	50	100
	109	117	May-July	132	165	46	93
	96	118	May-June	107	128	43	81
Cle Elum River nr. Roslyn 8/	485	118	May-Sept	506	676	237	410
	445	120	May-July	459	595	207	371
	360	118	May-June	355	431	172	306
Bumping River nr. Nile 9/	155	120	May-Sept	172	213	63	129
	142	120	May-July	155	190	57	118
	116	121	May-June	112	135	51	96

* Thousands of Miners' Inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

9/ Observed flow corrected for storage in Bumping Lake.

Basin, Stream and Station	Forecast Runoff 1976	% 15-Yr. Avg.	Seasonal Streamflow in Thousands of Acre-Feet: Fore-cast period	1975	1974	1973	15-Yr. Average 58-72
YAKIMA RIVER SYSTEM (Cont.)							
American River	129	115	May-Sept	141	185	59	112
nr. Nile	118	115	May-July	129	163	54	103
	96	113	May-June	96	119	47	85
Tieton River	248	116	May-Sept	277	360	140	214
at Tieton Dam 10/	208	117	May-July	232	292	104	178
	165	119	May-June	166	211	78	139
Naches River	930	124	May-Sept	959	1237	366	748
nr. Naches 11/	815	122	May-July	856	1094	309	669
	680	122	May-June	666	846	260	557
Ahtanum Creek	48	123	May-Sept	50	68	16	39
nr. Tampico 12/	43	123	May-July	44	61	14	35
	37	123	May-June	37	49	12	30
LOWER COLUMBIA RIVER SYSTEM							
Mill Creek	21	117	May-Sept	30	39	13	18
nr. Walla Walla	17	121	May-July	25	33	9	14
	14	117	May-June	21	29	6	12
Lewis River	1110	119	May-Sept	977	1469	591	932
at Ariel 13/	925	121	May-July	810	1276	456	765
	770	120	May-June	672	1006	365	643
Cowlitz River	1850	112	May-Sept		2745	1001	1650
Blw. Mayfield Dam	1542	111	May-July		2397	815	1391
	1220	109	May-June		1837	659	1123
Cowlitz River	2330	111	May-Sept	2318	3282	1316	2108
at Castle Rock 14/	2000	115	May-July	1945	2848	1056	1741
	1590	113	May-June	1483	2183	858	1407

10/ Observed flow corrected for storage in Rimrock Lake.
11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.
12/ Observed flow of North and South Forks (Combined).
13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.
14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet % 15-Yr. Avg.	Fore-cast period	1975	1974	1973	15-Yr. Average 58-72
OLYMPIC PENINSULA							
DUNGENESS RIVER SYSTEM							
Dungeness River	160	109	May-Sept		187	109	147
nr. Sequim	130	109	May-July		145	86	119
	94	111	May-June		93	62	85
PUGET SOUND							
SKAGIT RIVER SYSTEM							
Skagit River at Newhalem 15/	2760	131	May-Aug.	2500	2759	1381	2037
CEDAR RIVER SYSTEM							
Cedar River at Cedar Falls	122	134	Apr-Sept		145	53	91
GREEN RIVER SYSTEM							
Green River blw. Howard Hanson Dam 16/	330	150	May-Sept	290	372	124	220

15/ Observed flow corrected for storage in Diablo, Ross and Gorge Reservoirs.
16/ Observed flow corrected for storage in Howard Hanson Dam.

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about May 1, 1976 as percent of the same date in 1975 and 1974 and average of record.

Tributary Basins	No. of Courses Average	1976 Snow Water Expressed as percent of 1975	1974	1958-72 Avg.
		UPPER COLUMBIA BASIN		
Pend Oreille	13	70	66	96
Kettle	12	88	103	143
Spokane	9	86	78	99
Okanogan	32	82	74	113
Methow	6	52	36	71
Chelan	1	120	99	136
Entiat	10	124	87	141
Wenatchee	8	91	107	212
Yakima	17	86	71	135
		LOWER COLUMBIA		
Asotin Creek	1	89	68	114
Mill Creek	1	-	64	178
White Salmon	2	99	64	108
Lewis	17	116	74	172
Cowlitz	5	99	73	115
		PUGET SOUND		
Nisqually	4	108	79	-
White	3	88	79	91
Green	2	78	64	84
Snoqualmie	1	86	62	117
Skykomish	2	89	74	113
Skagit	13	123	109	182
Baker	11	127	118	165
Nooksack	1	114	65	-
		OLYMPIC PENINSULA		
Skokomish	3	109	77	-
Elwha	1	121	109	126
Morse	1	128	105	-

RESERVOIR STORAGE - 1000 ACRE FEET

BASIN STREAM	RESERVOIR	USABLE 1/ CAPACITY	Measured (May) 1976	1975	1974	Normal*
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	236.7	204.2	419.1	253.2
Columbia	Franklin D. Roosevelt Lake	5232.0	659.3	312.1	-1948.0	1654.6
Columbia	Banks Lake	761.8	597.3	550.7	548.2	457.7
Okanogan	Conconully Reservoir	13.0	11.3	11.0	10.1	11.2
Okanogan	Salmon Lake	10.5	9.8	9.5	9.9	7.8
Chelan	Lake Chelan	676.1	367.3	79.0	188.5	225.1
		YAKIMA				
Yakima	Keechelus Lake	157.8	104.5	99.5	116.5	121.2
Kachess	Kachess Lake	239.0	218.5	176.5	149.8	199.2
Cle Elum	Lake Cle Elum	436.9	307.3	276.6	249.7	310.9
Bumping	Bumping Lake	33.7	8.0	3.0	8.4	16.1
Tieton	Rimrock Lake	198.0	141.2	134.8	144.3	146.9
		PUGET SOUND				
Skagit	Ross Reservoir	1404.1	743.0	385.9	700.2	751.2
Skagit	Diablo Reservoir	90.6	87.1	86.9	85.7	85.7
Skagit	Gorge Reservoir	9.8	8.4	7.9	7.9	-

1/ Based on Active Storage
* 15-year Average 1958-72

SOIL MOISTURE - MAY

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of May 1 1976	1975	1974
OKANOGAN							
Salmon Meadows	19A02M	4500	48	5.4	4.3	3.8	3.8
Trout Creek	3-M	3600	48	7.3	4.9*	-	5.6
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	4.8
Lake Cle Elum	21B14M	2200	48	12.8	-	-	9.1
WALLA WALLA							
Couse	17C3m	3650	48	11.1	-	-	-
Helmers	17C2M	4400	48	12.0	-	-	-
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	15.2	12.4	13.0

* April Measurement

FALL SOIL MOISTURE

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of Oct. 1 1975	1974	1973
OKANOGAN							
Salmon Meadows	19A02M	4500	48	5.4	3.2	1.8	2.6
Trout Creek	3-M	3600	48	7.3	3.1	3.0	2.8
YAKIMA							
Domery Flat	21B20m	2200	48	6.9	-	-	2.6
Lake Cle Elum	21B14M	2200	48	12.8	-	-	6.1
WALLA WALLA							
Couse	17C3m	3650	48	11.1	7.3	-	5.6
Helmers	17C2M	4400	48	12.0	6.5	-	7.6
WENATCHEE							
Upper Wheeler	20B7M	4400	48	12.7	8.6	5.4	6.0

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL Sept-Oct 1975 2/ Observed	Departure	WINTER Nov. 1975--Mar. 1976 Observed	Departure	SPRING April, 1976 Observed	Departure
Columbia in Canada	3.51	+ 0.96	13.54	+ 0.79	1.13	- 0.33
Pend Oreille - Spokane	4.27	- 0.21	18.45	- 0.30	2.19	- 0.11
Northeastern Washington	2.29	- 0.49	9.45	- 1.66	1.56	+ 0.11
Southeastern Washington	2.94	- 0.29	11.77	- 1.70	2.01	- 0.02
Central Washington	5.47	+ 0.72	33.67	+ 6.14	1.87	- 0.32
North Central Washington	1.22	- 0.40	5.87	- 0.85	0.50	- 0.39
Northwest Slope Cascades	15.42	+ 2.73	65.16	+12.93	4.89	- 1.48
Southwest Slope Cascades	8.34	- 0.34	46.34	+ 4.70	3.76	- 0.86

Northeastern Washington - Lower Spokane, Colville, Sanpoil and Lower Kettle Drainages.

Southeastern Washington - Touchet, Tucannon and Palouse Drainages.

Central Washington - Yakima, Wenatchee and Chelan Drainages.

North Central Washington - Methow and Okanogan Drainages.

Northwest Slope Cascades - Puget Sound Drainages.

Southwest Slope Cascades - Lower Columbia Drainages.

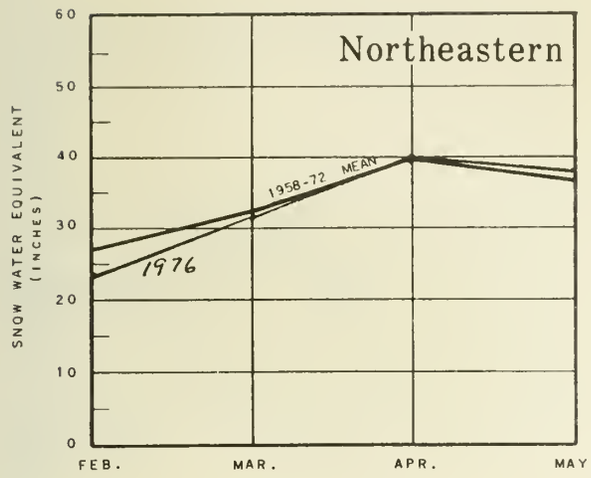
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

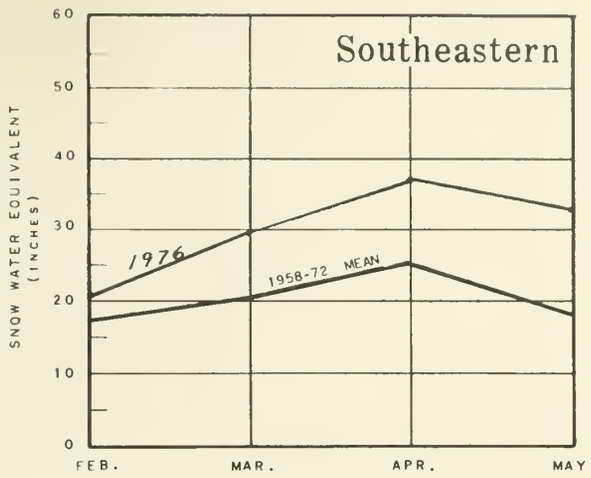
2/ - Departure from 15-year (1958-72) drainage division average.

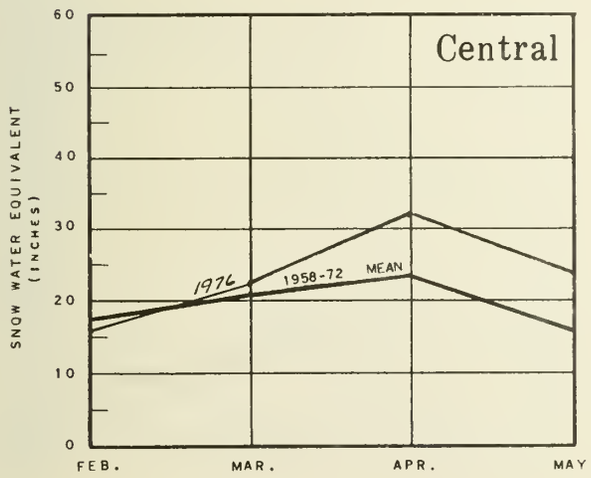
WASHINGTON SNOW COVER

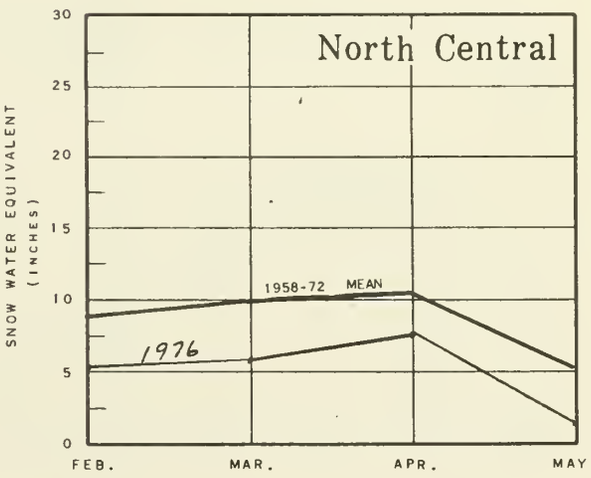
1976

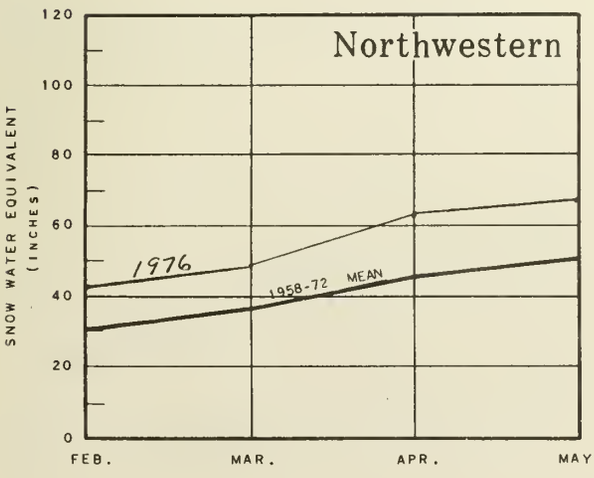
DRAINAGE AREAS

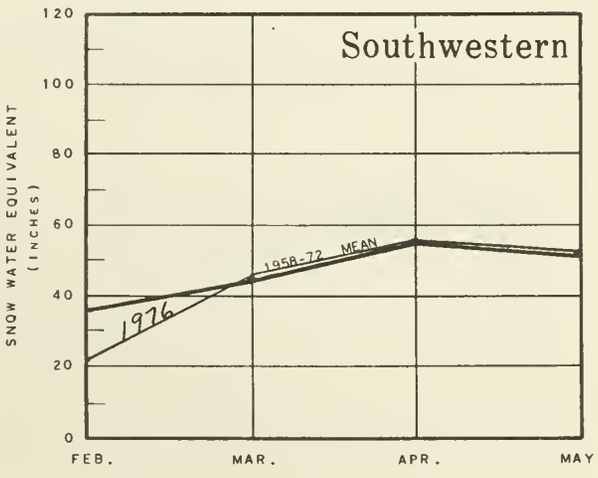








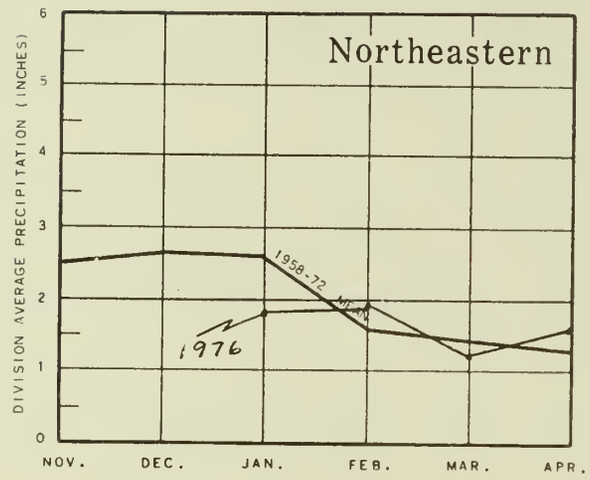


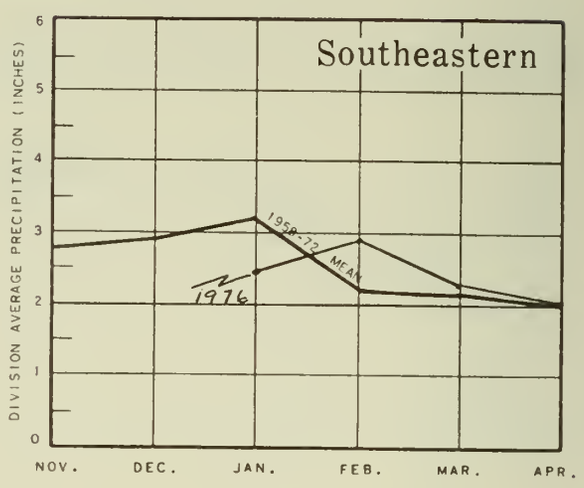


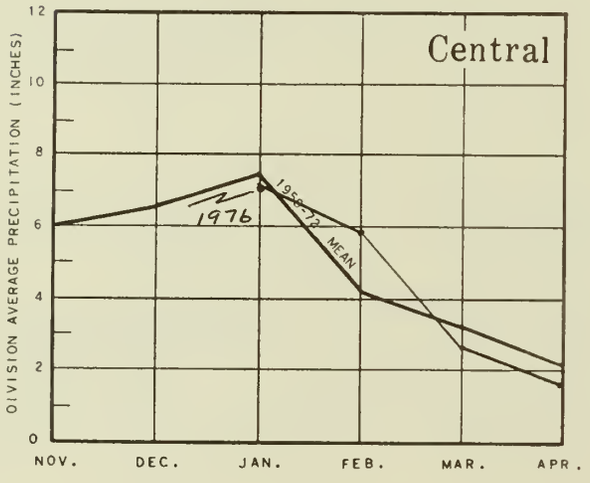
WASHINGTON VALLEY PRECIPITATION

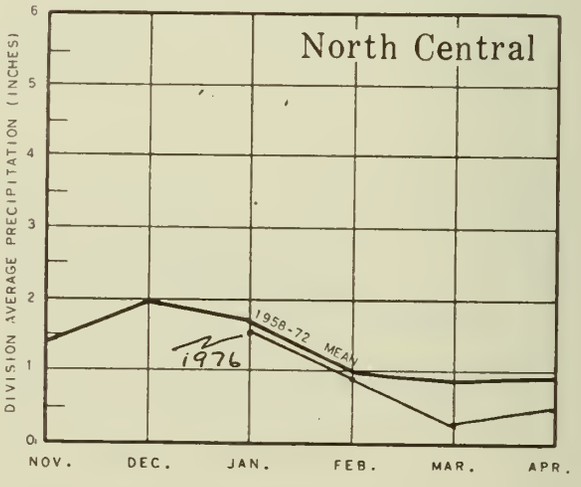
1976

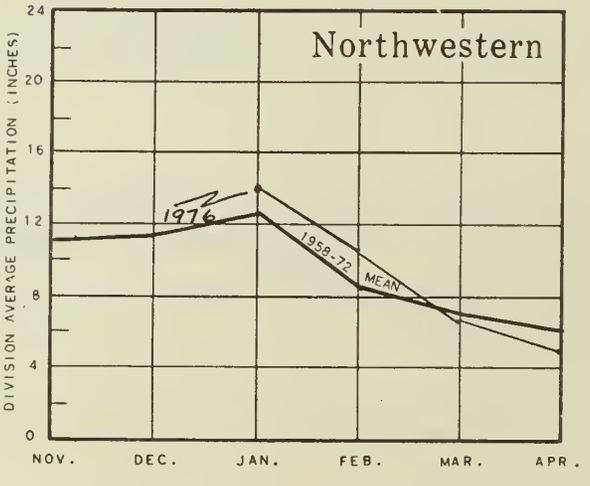
DRAINAGE AREAS

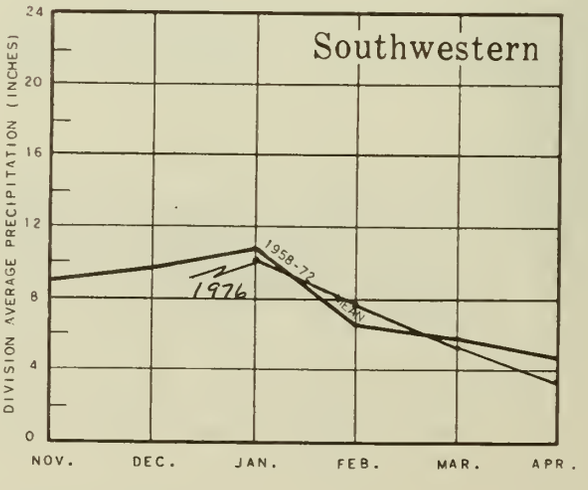






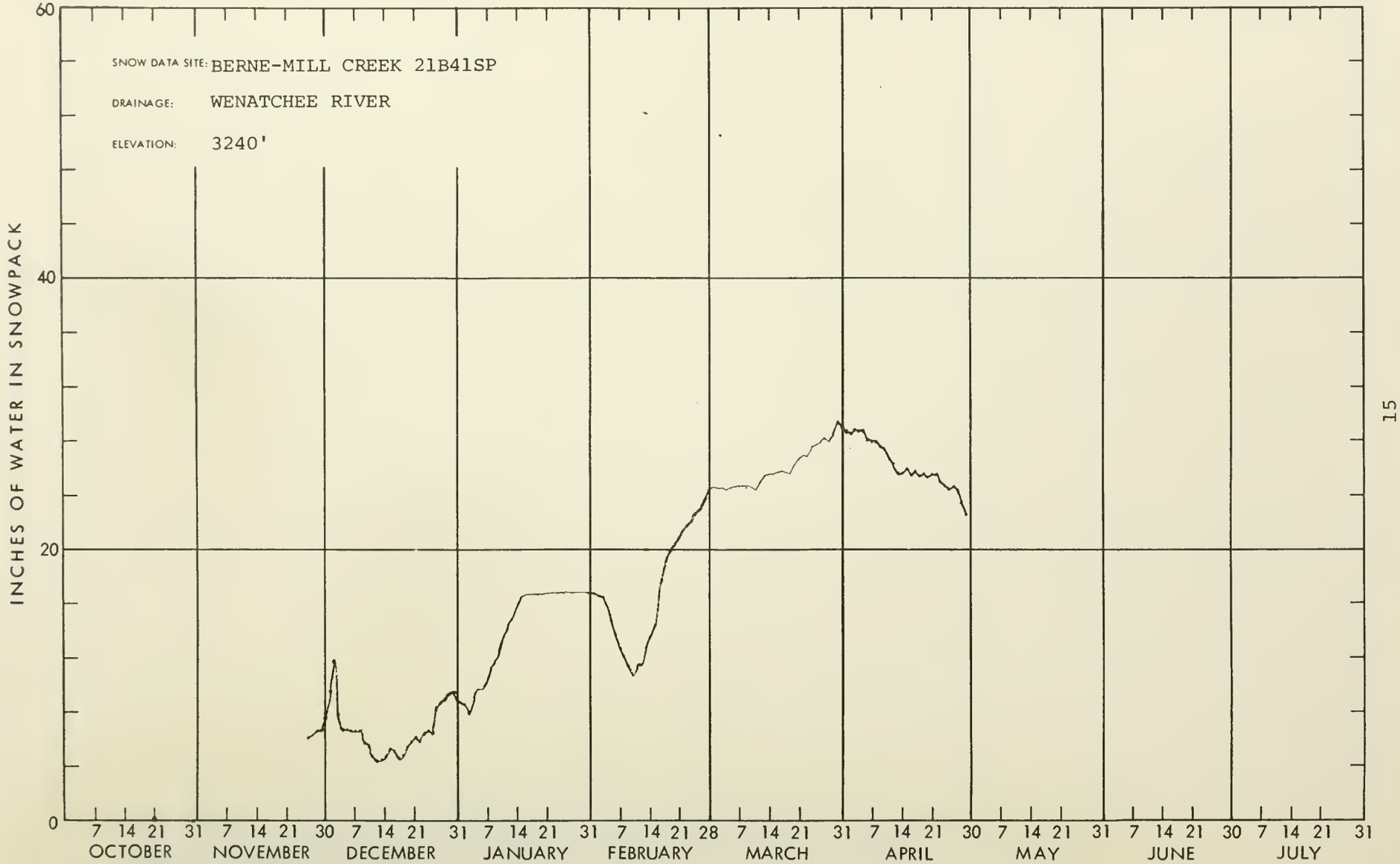






Preliminary Analysis by National Weather Service

WSFB-X13C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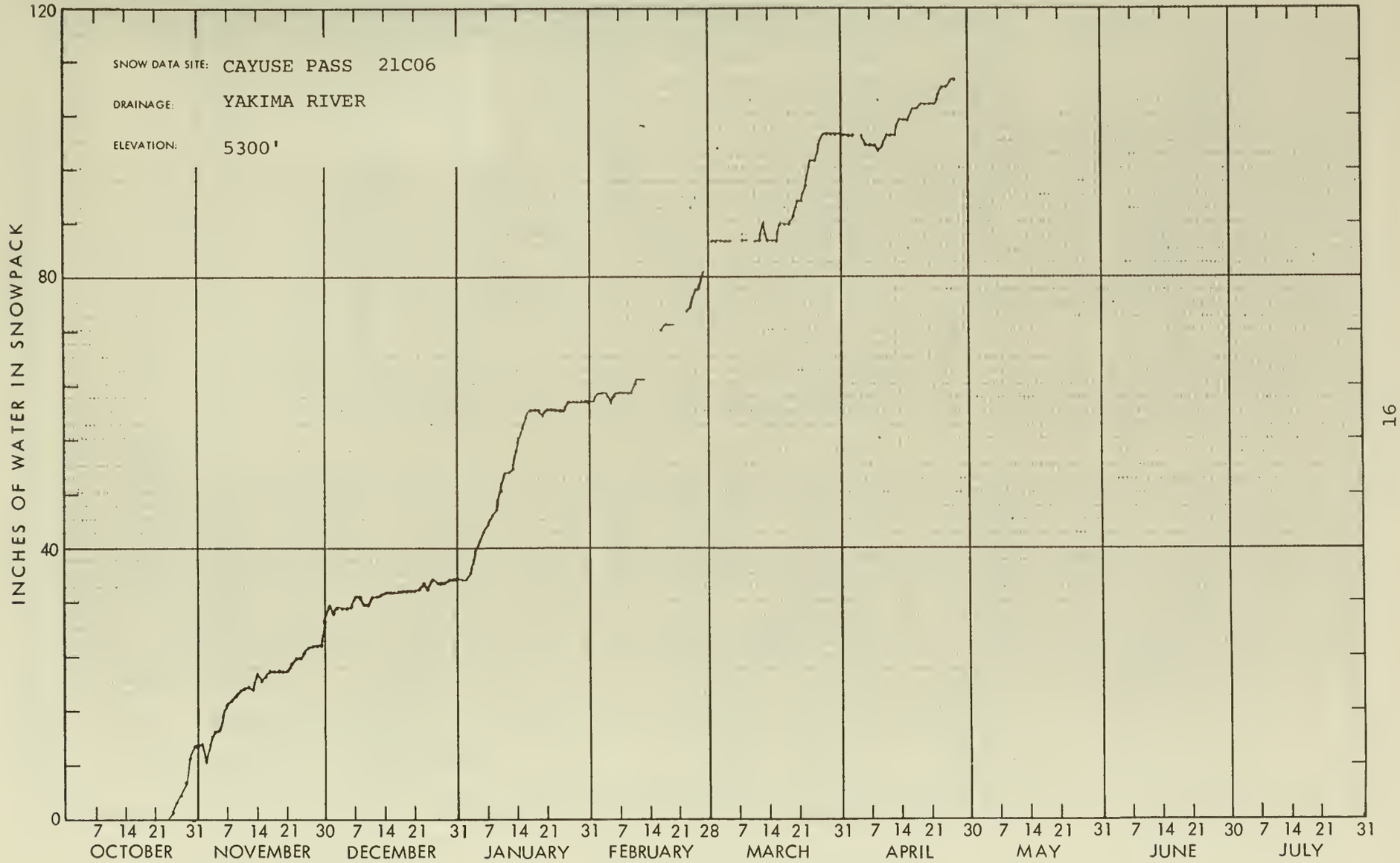
DRAINAGE: WENATCHEE RIVER
ELEVATION: 3240'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

15

WSFB-X13D

"LANDSAT" Relay from U.S.G.S., Tacoma



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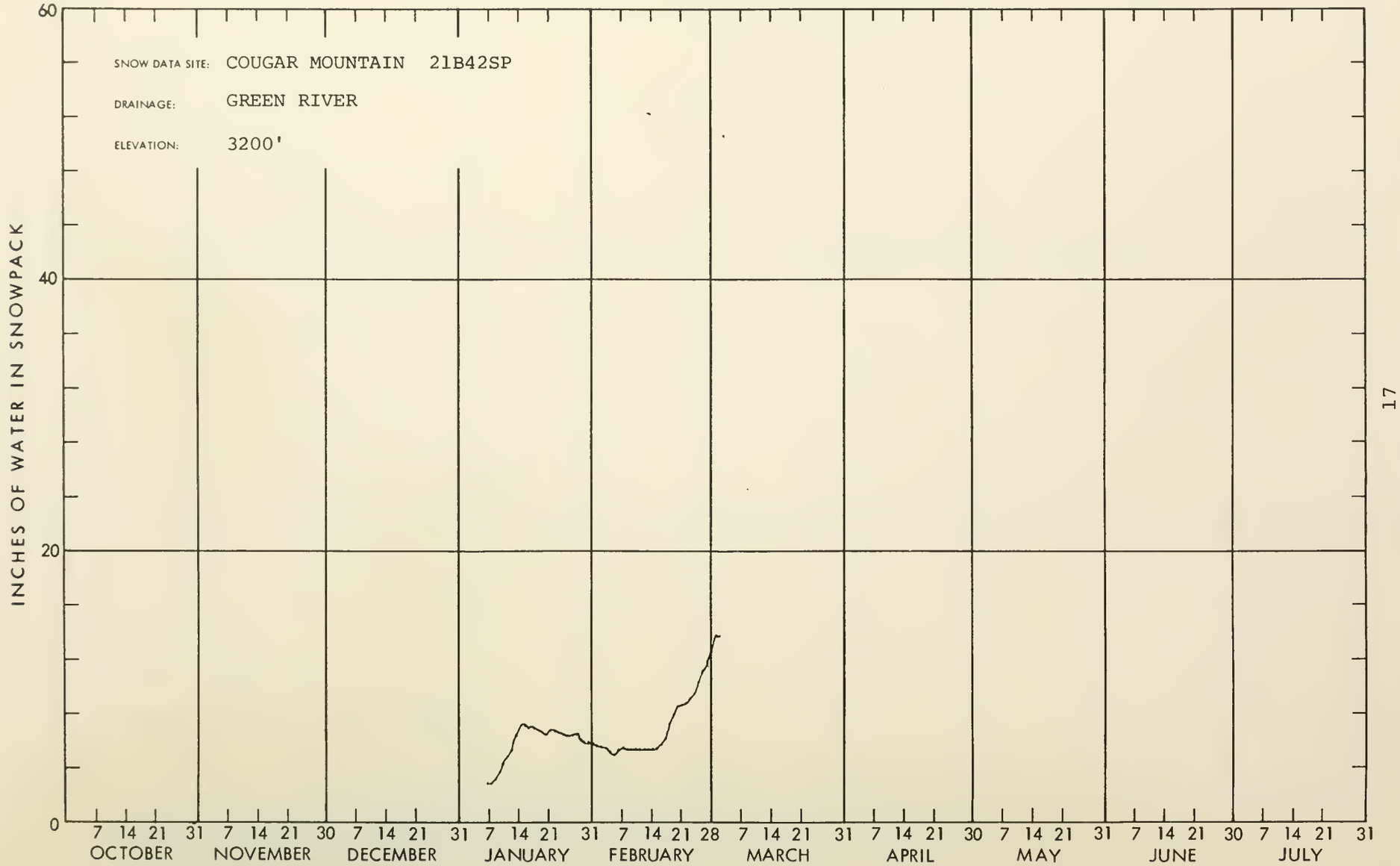
WSFB-X13C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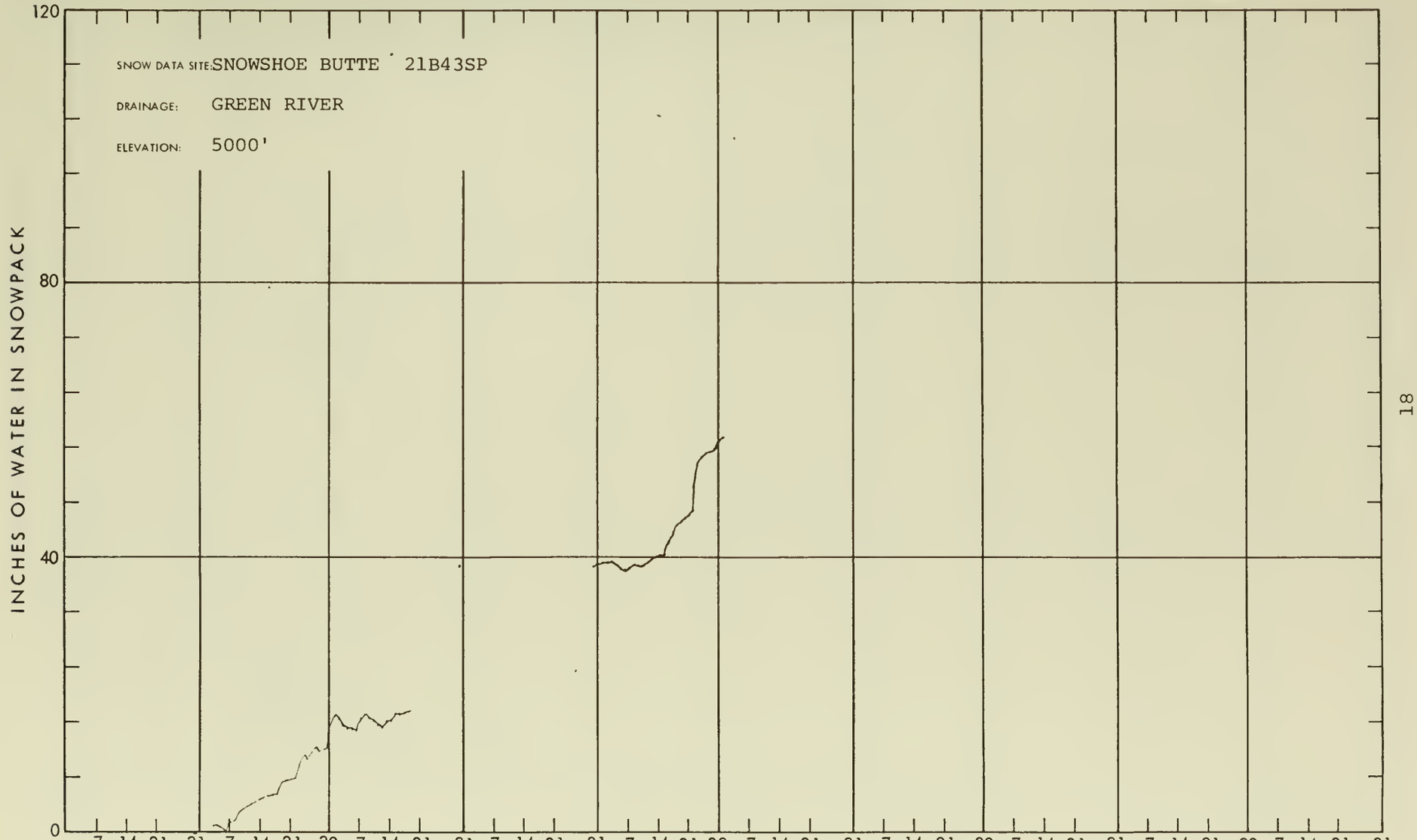
DRAINAGE: GREEN RIVER
ELEVATION: 3200'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

WSFB-X13D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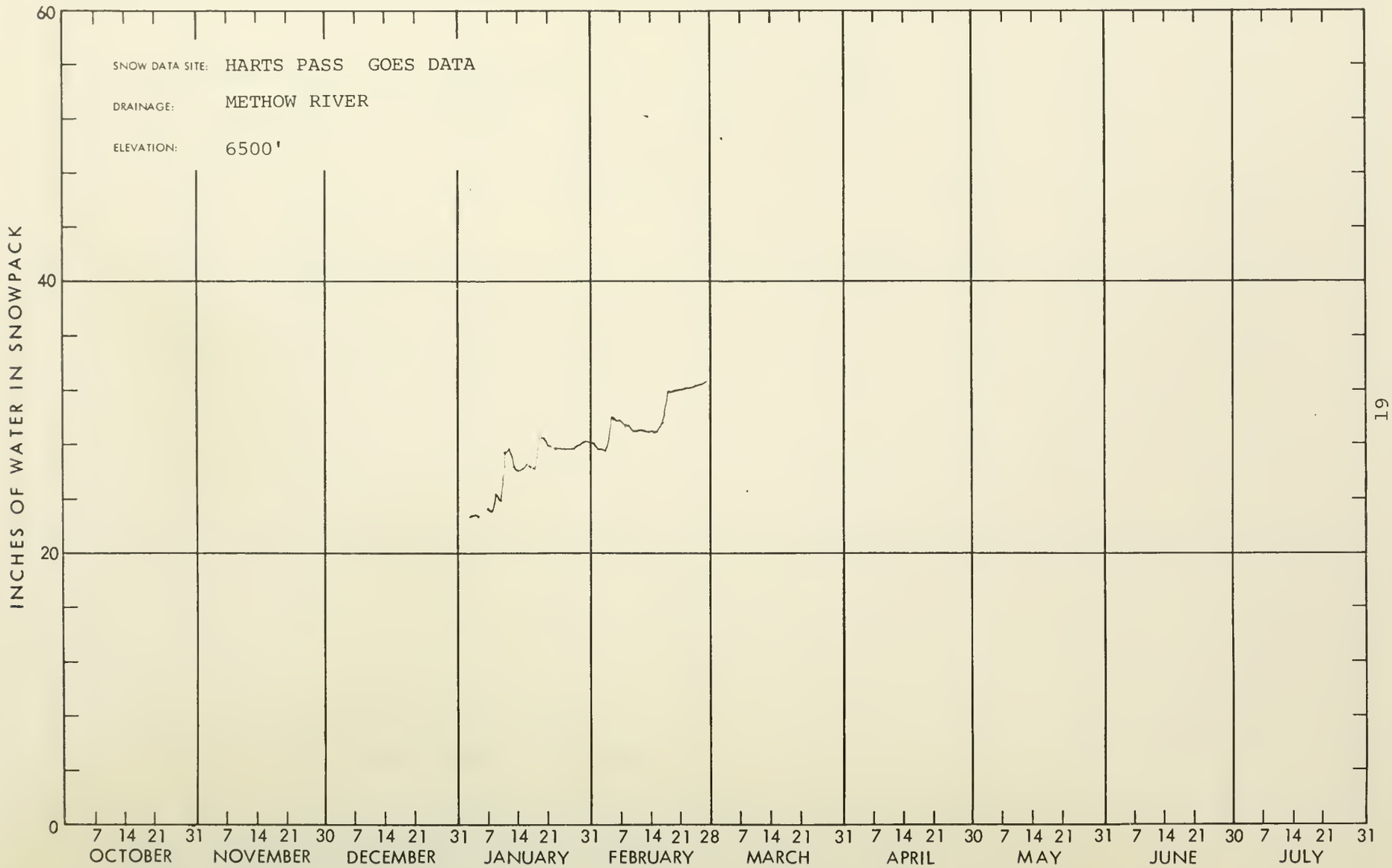
DRAINAGE: GREEN RIVER
ELEVATION: 5000'
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

WSFB-X13C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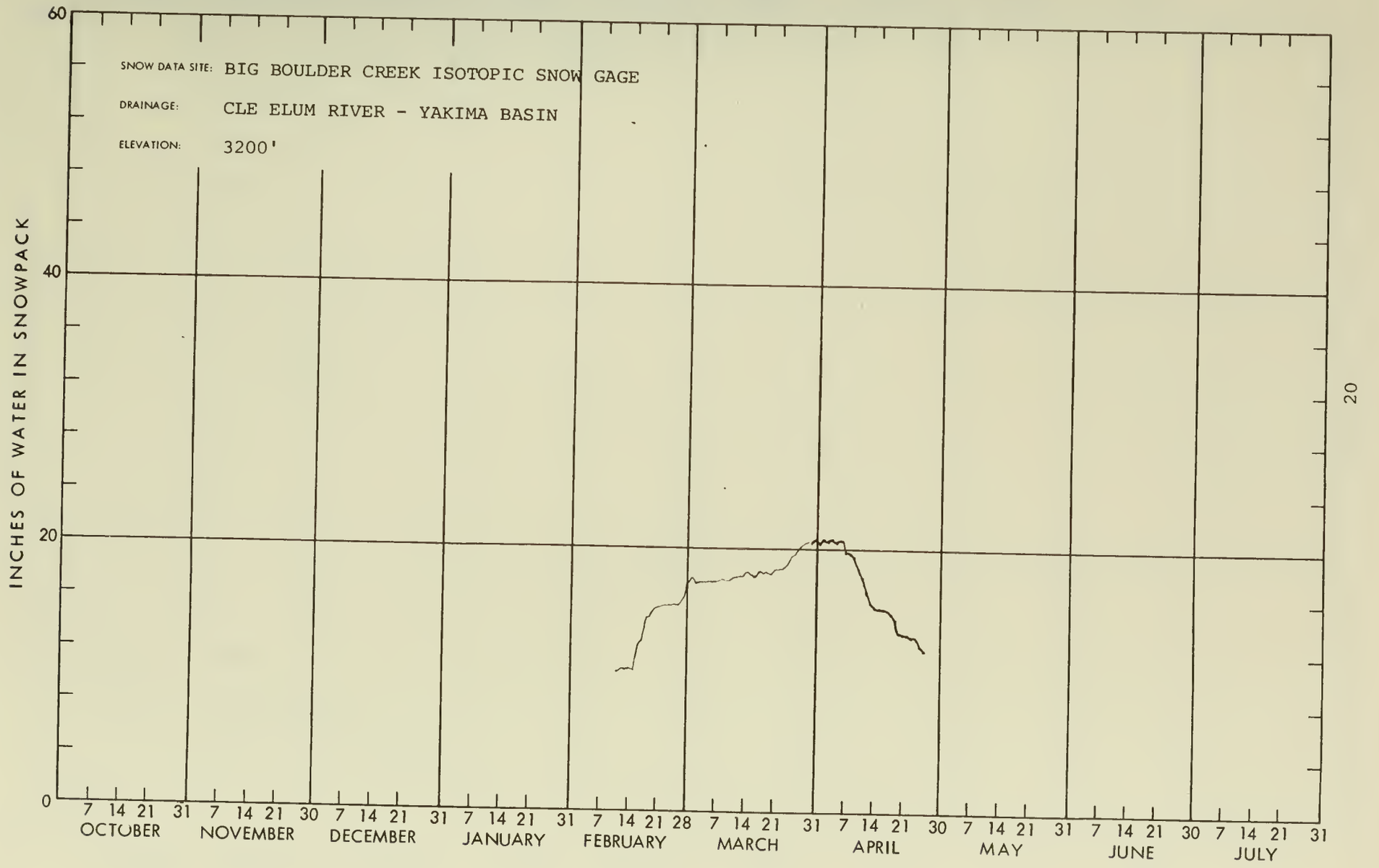
DRAINAGE: METHOW RIVER
ELEVATION: 6500'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

WSFB-X13C


SNOW DATA SITE: BIG BOULDER CREEK ISOTOPIC SNOW GAGE
DRAINAGE: CLE ELUM RIVER - YAKIMA BASIN
ELEVATION: 3200'
INCHES OF WATER IN SNOWPACK
60
40
20
0
20
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
NOVEMBER
DECEMBER
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MARCH
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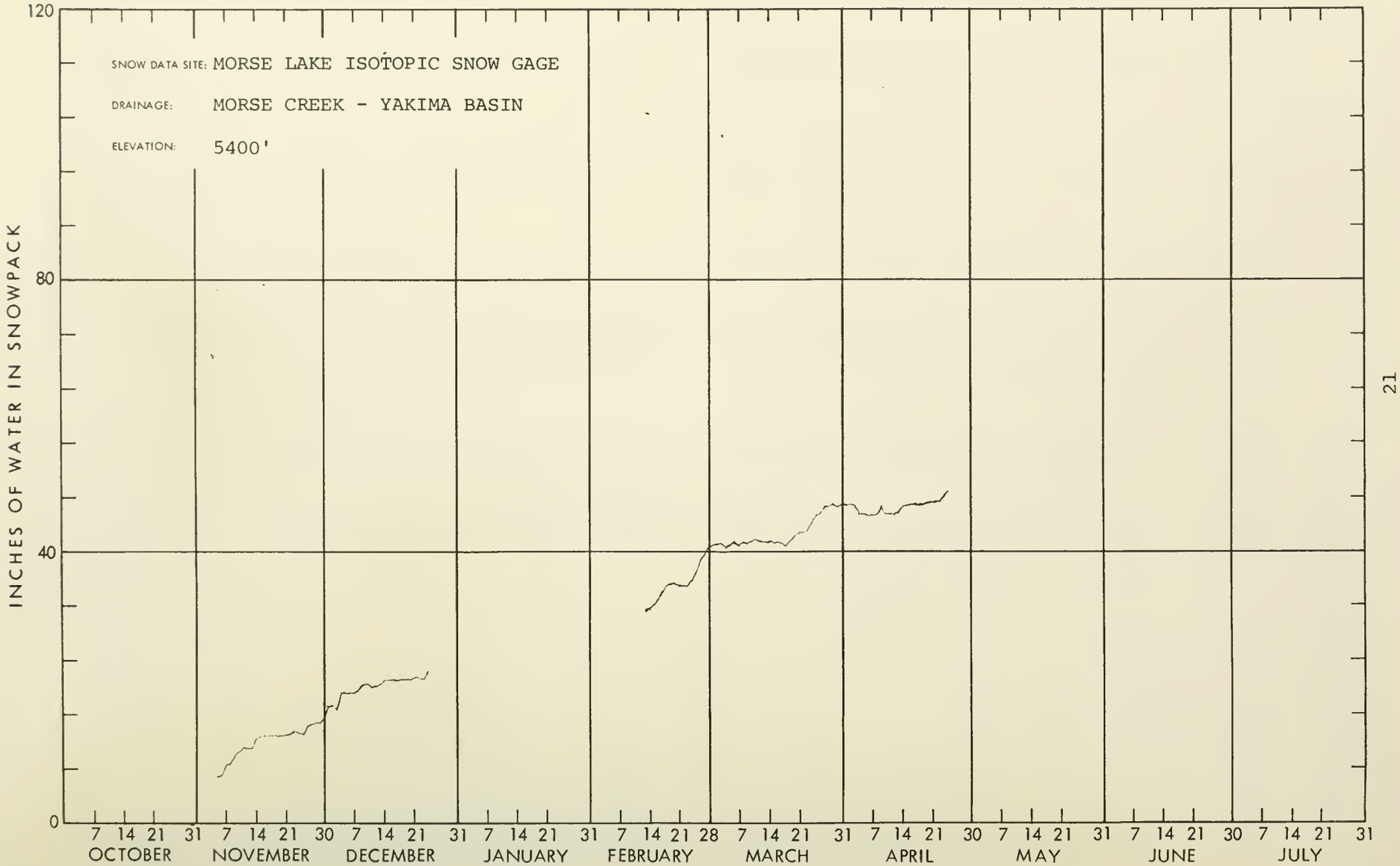
JUNE
JULY

WSFB-X 13D


SNOW DATA SITE: MORSE LAKE ISOTOPIC SNOW GAGE
DRAINAGE: MORSE CREEK - YAKIMA BASIN
ELEVATION: 5400'
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY
21

WSFB-X4-L

SNOW DATA TO MAY 1, 1976 - APPENDIX 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
						Water Content (inches)	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average #
UPPER COLUMBIA DRAINAGE							
PEND OREILLE RIVER							
Baree Creek	15B11	5500	5/3	113	56.2	61.4	49.6
Baree Midway	15B16	4600	5/3	78	37.1	47.8	35.1
Baree Trail	15B15	3800	5/3	1	0.3	10.3	1.2
Benton Meadow	16A02	2344	4/26	0	0.0	0.0	0.0
Benton Spring	16A03	4900	4/26	40	14.5	25.0	15.7
Boyer Mountain	17A02	5250	4/28	58	22.2	36.0	26.6
Brush Creek Timber	14A13	5000	4/29	22	8.1	11.9	8.2
Bunchgrass Meadow	17A01	5000	4/28	66	27.5	38.8	30.4
Heart Lake Trail	14C10	4800	4/28	49	20.9	30.2	19.0
Hoodoo Basin	15C10	6000	4/28	140	64.8	60.8	55.2
Hoodoo Creek	15C01	5900	4/28	126	56.4	57.6	52.2
Lookout	15B02	5250	4/15	99	37.5	-	-
			4/29	88	38.2	45.6	37.7
Nelson	19-Can	3050	4/29	23	7.5	15.6	7.0*
Smith Creek	16A01	4800	4/29	101	43.2	57.3	47.9
Winchester Creek	17A03	2970	4/28	0	0.0	9.5	1.6
KETTLE RIVER							
Barnes Creek	90-Can	5300	4/28	59	25.3	21.8	21.3*
Big White Mtn.	154-Can	5500	4/28	64	26.6	27.4	21.3*
Boulder Road	18A02	1450	4/28	0	0.0	0.0	0.0
Butte Creek	18A03	4070	4/28	23	7.9	10.9	5.9
Cabin Creek	18A08	3170	4/28	8.1	2.5	5.1	1.5
Carmi	126-Can	4100	4/28	12	5.5	5.5	1.9*
Farron # 1	17-Can	4000	4/29	34	12.7	13.6	8.2*
Farron # 2	243-Can	4000	4/29	32	12.9	14.4	New
Goat Creek	18A04	3595	4/28	0	0.0	0.0	0.0
Graystoke Lake	5-Can	5950	4/27	60	20.5	22.0	26.9*
Monashee Pass	48A-Can	4500	4/28	38	16.2	13.2	13.4*
Old Glory Mtn.	42-Can	7000	4/27	92	33.6	40.7	30.8*
Snow Caps Creek	18A05	2150	4/28	0	0.0	0.0	0.0
Snow Caps Trail	18A06	2720	4/28	0	0.0	0.0	0.0
Summit G. S.	18A07	4600	4/28	21	6.6	10.8	6.0
Trapping Creek Lower	166-Can	3050	4/28	0	0.0	0.0	0.0*
Trapping Creek Upper	165-Can	4450	4/28	25	10.0	12.4	6.1*
SPOKANE RIVER							
Above Burke	15B08	4100	4/29	60	25.9	33.6	-
Copper Ridge	16B02	4800	4/28	62	28.5	31.0	27.3
Forty-nine Meadows	15B03	5000	4/29	70	27.4	31.0	30.3

\# Average based on 1958-72 average
* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 2

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Average #
SPOKANE RIVER (Cont.)							
Fourth of July Summit	16B03	3100	4/27	8.6	3.1	5.5	-
Granite Peak	15B13A	6000	4/29	121	44.0	46.2	48.3
Lookout	15B02	5250	4/15	99	37.5	-	-
			4/29	88	38.2	45.6	37.7
Lost Lake	15B14A	6000	4/29	154	59.2	59.6	62.0
Lower Sands Creek	16B01	3400	4/28	50	19.2	23.0	16.0
Medicine Ridge	15B04A	6150	4/29	126	46.8	47.4	51.5
Sherwin	16C01	3200	4/30	35	12.2	-	-
OKANOGAN RIVER							
Aberdeen Lake	6A-Can	4300	5/1	8.7	2.6	5.5	1.7*
Blackwall Mountain	100-Can	6250	4/29	107	51.8	38.0	38.8*
Bouleau Lake	234-Can	4580		Not Measured		-	15.3*
Brenda Mine	193-Can	4800	4/28	32	17.2	14.0	10.8*
Brookmere	27-Can	3200	5/1	13	3.9	10.3	5.9*
Carrs Landing Upper	168-Can	3200	4/29	0	0.0	0.0	0.0*
Enderby	130-Can	6250	5/3	109	45.5	49.8	43.1*
Esperon Creek Lower	164-Can	4400	4/25	30	10.5	15.0	11.0*
Esperon Creek Middle	163-Can	4700	4/25	38	14.5	20.4	13.9*
Esperon Creek Upper	162-Can	5400	4/25	48	19.1	24.7	20.4*
Freezeout Meadows New	20A38	5000	4/25	102	43.9	44.0	-
Graystoke Lake	5-Can	5950	4/27	60	20.5	22.0	26.9*
Hamilton Hill	107-Can	4900	4/29	46	17.9	15.7	13.4*
Harts Pass	20A05A	6500	4/25	144	65.9	53.9	50.7
Isintok Lake	152-Can	5510	4/30	35	9.6	10.8	7.3*
Lost Horse Mountain	105-Can	6300	5/1	35	12.3	13.4	10.7*
Loup Loup	19A07	4650	4/29	3.2	1.8	9.0	-
McCulloch	4-Can	4200	4/30	9	3.2	6.2	2.8*
Missezula Mountain	106-Can	5100	4/28	26	9.1	11.1	4.5*
Mission Creek	5A-Can	6000	4/27	70	25.9	26.2	21.7*
Monashee Pass	48A-Can	4500	4/28	38	16.2	13.2	13.4*
Mount Kobau	156-Can	5950	4/30	34	11.4	15.7	13.7*
Mutton Creek No. 1	19A01	5700	4/28	19	6.5	16.1	10.9
Mutton Creek No. 2	19A04	6000	4/28	34	9.6	17.3	15.5
Mutton Creek No. 2 SP	19A11SP	6000	4/28	-	8.6	14.8	-
New Copper Mountain	46A-Can	4300	4/28	0	0.0	2.7	3.7*
New Penticton Res. #2	183-Can	5225	4/29	28	9.2	12.5	-
Nickel Plate Mtn.	47-Can	6200	4/28	33	10.6	11.6	7.9*
Postill Lake	55-Can	4500	4/30	22	8.0	10.2	6.8*
Quartette Lake	34-Can	4000	4/27	49	19.1	9.9	-
Rusty Creek	19A03	4000	4/28	0	0.0	4.3	0.6
Salmon Meadows	19A02	4500	4/28	5.2	1.7	9.2	5.4

\# Average based on 1958-72 average
* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 3

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD Water Content (inches) Last Year	Average #
OKANOGAN RIVER (Cont.)							
Silver Star Mountain	99-Can	6050	5/1	80	37.2	36.7	27.4*
Summerland Reservoir	3A-Can	4200	5/1	21	8.0	13.0	6.7*
Trout Creek	3-Can	4700	4/29	22	8.0	10.7	5.2*
Vaseux Creek	233-Can	4600	5/1	11	4.0	5.4	2.9*
White Rocks Mountain	70-Can	6000	4/30	59	25.0	35.4	28.3*
ENTIAT RIVER							
Blue Creek G. S. +	20B28a	5425	4/26	126	59.2	44.9	New
Brief	20B19	1600	4/24	0	0.0	0.0	0.0
Entiat Meadows +	20A33a	4800	4/26	142	66.7	45.8	41.0
Entiat River Trail +	20A34a	3150	4/26	56	22.0	10.1	9.7
Four Mile Ridge +	20B27a	7000	4/26	111	52.2	44.0	-
Fox Camp +	20A36a	6510	4/26	168	79.0	64.2	63.5
Pope Ridge	20B20	4300	4/29	28	11.0	18.5	8.2
Pugh Ridge +	20A32a	6400	4/26	109	51.2	41.8	38.7
Shady Pass	20A37	6200	4/30	88	41.7	36.1	-
Snow Brushy +	20A35a	3850	4/29	59	23.2	34.0	30.8
Tommy Creek +	20B21a	5300	4/26	64	30.1	22.4	22.5
METHOW RIVER							
Harts Pass	20A05A	6500	4/25	144	65.9	53.9	50.7
Loup Loup	19A07	4650	4/29	3.2	1.8	9.0	-
Mutton Creek No. 1	19A01	5700	4/28	19	6.5	16.1	10.9
Mutton Creek No. 2	19A04	6000	4/28	34	9.6	17.3	15.6
Mutton Creek No. 2 SP	19A11SP	6000	4/28	-	8.6	14.8	-
Rusty Creek	19A03	4000	4/28	0	0.0	4.3	0.6
Salmon Meadows	19A02	4500	4/28	5.2	1.7	9.2	5.4
CHELAN LAKE BASIN							
Rainy Pass	20A09	4780	4/25	130	60.2	49.8	44.3
WENATCHEE RIVER							
Berne-Mill Creek	21B23	2925	4/29	69	29.0	39.3	21.1
Berne-Mill Creek New SP	21B41SP	3240	4/29	45	20.0	31.4	17.7
Blewett Pass No. 2	20B02	4270	4/13	43	17.4	20.2	13.0
			4/28	35	16.2	19.5	9.5
Chiwaukum G. S.	20B16	1810	4/29	0	0.0	0.0	1.8
Fish Lake	21B04	3371	4/26	94	40.8	37.0	26.7
Lake Wenatchee	20B05	1970	4/29	19	8.0	5.4	1.6
Leavenworth R. S.	20B17	1127	5/1	0	0.0	0.0	0.0

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Average #
WENATCHEE RIVER (Cont.)							
Merritt	20B18	2140	4/29	26	11.2	15.6	3.8
Stevens Pass	21B01	4070	4/15	156	59.3	67.6	55.2
			4/29	141	63.3	69.2	55.8
Stevens Pass Sand Shed	21B45	3700	4/15	109	42.9	48.9	-
			4/29	95	42.3	48.7	-
SQUILCHUCK CREEK							
Beehive Springs	20B03	4400	4/28	0	0.0	5.4	1.7
Scout-A-Vista	20B04	3400	4/28	0	0.0	0.5	0.4
STEMILT CREEK							
Jump-Off	20B08	4450	4/30	5.2	2.0	8.2	2.8
Stemilt Slide	20B06	5000	4/29	19	8.0	14.7	7.1
Upper Wheeler	20B07	4400	4/29	0	0.0	7.3	1.0
COLOCKUM CREEK							
Colockum Creek Upper	20B22	5300	4/29	8.7	4.5	17.5	-
Colockum Creek Lower	20B23	4300	4/29	0	0.0	8.5	-
Trough # 2	20B25SP	5310	4/29	7.7	4.3	New	
YAKIMA RIVER							
Ahtanum R. S.	21C11	3100	5/1	0	0.0	-	0.0
Big Boulder Creek	21B09	3200	4/26	41	17.0	20.9	7.4
Blewett Pass No. 2	20B02	4270	4/13	43	17.4	20.2	13.0
			4/28	34	16.2	19.5	9.5
Bumping Lake	21C08	3450	4/14	42	15.2	20.4	13.4
			4/30	28	11.4	14.8	9.4
Bumping Lake New	21C36	3400	4/14	56	21.4	26.4	-
			4/30	43	18.5	21.5	15.0
Cayuse Pass	21C06	5300	4/25	236	108.6	105.4	-
Corral Pass	21B13	6000	4/29	125	53.9	58.4	-
Fish Lake	21B04	3371	4/26	94	40.8	37.0	26.7
Joe Lake	21B46a	4624	4/27	219+	94.6	99.4	-
Lake Cle Elum	21B14M	2200	4/14	15	6.3	8.0	-
			4/29	0	0.0	0.0	0.0
Lemah Creek +	21B47a	3327	4/27	84	35.2	46.0	-
Morse Lake	21C17	5400	4/26	152	59.5	88.1	65.1
Olallie Meadows	21B02	3625	4/13	127	55.6	64.8	48.4
			4/30	122	57.1	66.5	48.6

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 5

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
YAKIMA RIVER (Cont.)							
Satus Pass	20D01	4030		Not Measured		12.8	1.9
Stampede Pass SP	21B10SP	3860	4/13	-	42.6	53.8	43.4
			5/3	-	36.6	55.0	43.4
Tunnel Avenue	21B08	2450	4/15	75	29.6	33.0	20.1
			4/28	57	24.6	29.0	16.0
Van Epps Pass +	20B26a	5925	4/27	146	63.0	63.0	-
Waptus Lake +	21B49a	3024	4/27	80	33.3	41.9	-
White Pass (E. Side)	21C28	4500	4/15	74	28.9	34.0	26.0
			4/28	73	29.7	33.6	25.9
White Pass (L. Lake)	21C27	4500	4/25	82	35.8	39.3	28.6
LOWER COLUMBIA DRAINAGE							
ASOTIN CREEK							
Spruce Springs	17C04	5700	4/26	72	29.5	33.3	25.8
MILL CREEK							
Tollgate	18D3M	5070	4/28	70	33.6	-	18.9
KLICKITAT RIVER							
Satus Pass	20D01	4030		Not Measured		12.8	1.9
WHITE SALMON RIVER							
Cultus Creek	21C12	4000	4/28	125	53.6	51.3	48.9
Surprise Lakes	21C13A	4250	4/28	126	56.3	59.7	52.9
WIND RIVER							
Old Man Pass	21D19	3100	4/28	51	22.6	18.6	12.6
LEWIS RIVER							
Blue Lake +	21C22a	4800	4/26	237	106.5	104.9	92.4
Bob's Trail	21C21	2200	4/26	40	18.7	12.1	7.8
Calamity Ridge +	21D01a	2500	4/26	20	8.0	3.5	1.3
Council Pass +	21C18a	4200	4/26	120	54.0	51.0	38.8
Cultus Creek	21C12	4000	4/26	125	53.6	51.3	48.9
Divide Meadow +	21C29a	5600	4/26	172	77.4	70.5	65.5
Grand Meadow	21C25	3500	4/26	60	26.7	30.6	22.4

Average based on 1958-72 average
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 6

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Water Content (inches) Average #
LEWIS RIVER (Cont.)							
Lone Pine Shelter	21C26	3800	4/25	126	56.9	48.9	46.3
Marble Mountain +	22C05a	3200	4/26	99	42.2	35.5	33.2
Mosquito Meadows	21C19	4100	4/25	130	57.0	49.4	45.8
New Muddy River	22C06	2000	4/26	5.5	2.0	0.0	0.8
Old Man Pass	21D19	3100	4/26	51	22.6	18.6	12.6
Plains of Abraham +	22C01a	4400	4/26	160	73.6	80.1	76.9
Smith Creek Road	22C04	2100	4/26	10	4.2	7.4	5.3
Spencer Meadow +	21C20a	3400	4/26	62	27.3	23.5	16.1
Surprise Lakes	21C13A	4250	4/26	126	56.3	59.7	52.9
Table Mountain +	21C24a	4200	4/26	132	59.4	59.0	40.3
Timbered Peak +	21D18a	3000	4/26	52	23.4	15.8	9.9
COWLITZ RIVER							
Cayuse Pass	21C06	5300	4/25	236	108.6	105.4	-
Mosquito Meadows	21C19	4100	4/25	130	57.0	49.4	45.8
Plains of Abraham +	22C01a	4400	4/26	160	73.6	80.1	76.9
Potato Hill	21C14	4500	4/25	90	39.1	42.4	-
White Pass (E. Side)	21C28	4500	4/15	74	28.9	34.0	26.0
			4/28	73	29.7	33.6	25.9
White Pass (L. Lake)	21C27	4500	4/25	82	35.8	39.3	28.6
PUGET SOUND DRAINAGE							
NISQUALLY RIVER							
Ghost Forest	21C04	4550	4/26	138	60.8	61.1	-
Longmire	21C03	2760	4/26	21	9.2	7.6	-
New Paradise Park	21C35	5500	4/26	205	95.2	93.0	-
Stem Glade	21C01	5050	4/26	204	90.6	84.4	-
WHITE RIVER							
Cayuse Pass	21C06	5300	4/25	236	108.6	105.4	-
Corral Pass	21C13	6000	4/29	125	53.9	58.4	-
Morse Lake	21C17	5400	4/26	152	59.5	88.1	65.1
GREEN RIVER							
Cougar Mountain SP	21B42SP	3200	4/21	51	21.0	-	-
			5/1	Not Measured		30.7	-
Snowshoe Butte SP	21B43SP	5000	4/28	160	68.9	76.5	-
Stampede Pass SP	21B10SP	3860	4/13	-	42.6	53.8	43.4
			5/3	-	36.6	55.0	43.4

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 7

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches) Last Year	Water Content (Inches) Average #
SNOQUALMIE RIVER							
Olallie Meadows	21B02	3625	4/13	127	55.6	64.8	48.4
			4/30	122	57.1	66.5	48.6
SKYKOMISH RIVER							
Stevens Pass	21B01	4070	4/15	156	59.3	67.6	55.2
			4/29	141	63.3	69.2	55.8
Stevens Pass Sand Shed	21B45	3700	4/15	109	42.9	48.9	-
			4/29	95	42.3	48.7	-
SKAGIT RIVER							
Beaver Creek Trail	21A04	2200	4/26	37	16.7	13.2	4.8
Beaver Pass	21A01	3680	4/26	91	42.0	35.0	34.0
Brown Top	21A28a	6000	4/25	206	96.6	71.2	-
Devils Park	20A04A	5900	4/25	148	69.0	55.1	49.5
Freezeout Cr. Trail	20A01	3500	4/25	36	14.9	12.9	8.2
Freezeout Meadows New	20A38	5000	4/25	102	43.9	44.0	31.0
Granite Creek	21A29	3500	4/26	59	24.6	19.0	-
Harts Pass	20A05A	6500	4/25	144	65.9	53.9	50.7
Klesilkwa	35B-Can	3700		Not	Measured	-	11.3*
Meadow Cabins	20A08	1900	4/26	14	4.2	3.8	1.3
New Hozomeen Lake	21A30	2800	4/25	34	13.7	10.6	-
New Tashme	26A-Can	2500		Not	Measured	10.5	5.6*
Quartette Lake	34-Can	4000	4/27	49	19.1	9.9	-
Rainy Pass	20A09	4780	4/25	130	60.2	49.8	44.3
Thunder Basin	20A07	4200	4/26	75	28.5	42.1	25.5
BAKER RIVER							
Baker Pass +	21A27a	4900	4/29	244	122.0	99.9	-
Dock Butte	21A11A	3800	4/29	207	101.6	78.8	77.4
Easy Pass	21A07A	5200	4/26	254	123.0	101.0	93.3
Jasper Pass	21A06A	5400	4/26	271	126.8	104.2	102.7
Komo Kulshan	21A17	800	4/28	0	0.0	87.0	80.4
Marten Lake	21A09A	3600	4/29	229	114.0	86.5	83.8
Mount Blum +	21A18a	5800	4/28	197	94.6	81.0	-
Panorama New	21A26	4300	4/17	185	85.1	82.7	-
			5/3	181	95.7	83.7	-
Rocky Creek	21A12A	2100	4/29	100	49.0	37.6	22.6
Schreibers Meadow	21A10A	3400	4/28	180	86.2	73.8	67.5

\# Average based on 1958-72 average
* Average for years of record
\+ Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO MAY 1, 1976 - APPENDIX 8

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (inches)	Water Content (inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
BAKER RIVER (Cont.)							
S. F. Thunder Creek	21A14A	2200	4/29	15	8.0	5.7	1.1
Sulphur Creek	21A13	1600	4/28	44	20.9	14.1	6.4
Three Mile Creek	21A15	1600	4/29	0	0.0	0.0	0.0
Watson Lakes	21A08A	4500	4/29	194	92.0	77.2	76.9
NOOKSACK RIVER							
Panorama New	21A26	4300	4/17	185	85.1	82.7	-
			5/3	181	95.7	83.7	-
OLYMPIC PENINSULA							
MORSE CREEK							
Cox Valley	23B14	4500	4/27	135	57.9	45.1	-
ELWHA RIVER							
Hurricane	23B03	4500	4/26	86	34.0	28.1	26.9
SKOKOMISH RIVER							
Black & White	23B07	4200	4/25	140	58.2	53.2	-
Black & White Lakes	23B06	4700	4/25	161	74.4	72.6	-
Home Sweet Home	23B05	5200	4/25	228	94.0	80.8	-

Average based on 1958-72 average

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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WATER SUPPLY OUTLOOK FOR WASHINGTON

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Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
JUNE 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P.O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

USDA-SCS-PORTLAND, OREG. 1979

WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

GALEN S. BRIDGE

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

JOHN A. BIGGS

DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201

WATER SUPPLY OUTLOOK

State of Washington

June 1, 1976

In spite of the below average rainfall that occurred over Washington this past month, runoff was well above average. What it would have been if we had normal or above precipitation, you can well imagine. The Upper Columbia Basin in Canada and the Southwest Slopes of the Cascades were the only drainage divisions, as reported by the National Weather Service, in which rainfall was above normal, and that, 53 and 17 percent above, respectively. Rivers are being managed to keep the waters within their banks, when this is possible, and on unregulated streams, the flow is 15 to 38 percent above normal. The snow pack is gone at the low and mid elevation snow courses and is very close to average at the higher elevations.

SNOW COVER

Only a few Washington snow courses are measured, as of June 1, and these indicate near normal snow packs. Many of the British Columbia courses have above normal snow cover, as a result of the well above normal precipitation that occurred during the past month.

RESERVOIRS

All reservoirs are in excellent shape with normal or above amounts of water in storage. There has been some draw down of the Yakima irrigation reservoirs, to meet the irrigation water users requirements. This is a result of the recent cold weather that reduced streamflow to below diversion requirements. The Bureau of Reclamation still expects to fill their reservoirs during the last two weeks of June, but are concerned if this cool weather continues. The Okanogan Irrigation District reservoirs are full, which hasn't occurred as of June 1 for the past several years. Power reservoirs are being managed for flood control and are all expected to fill according to plan.

STREAMFLOW

As stated above, all streams had above normal outflows during the month of May. The main stem of the Columbia had a flow that ranged from 24 percent above normal at Birchbank to 32 percent above at The Dalles. The stream that had the poorest outflow was the Chehalis River, which had an outflow 9 percent above average, and the highest was the Palouse, with an outflow of 38 percent above normal.

PRECIPITATION

Rainfall over Washington was generally deficient during May, with the Pend Oreille-Spokane Drainage receiving 84 percent normal rainfall, Northeastern Washington, 87 percent and Central Washington, 72 percent. Southeastern Washington, Northcentral Washington and Northwest Slopes of the Cascades received 99 percent, 95 percent, and 98 percent normal rainfall, respectively. These preliminary figures were released by the National Weather Service.

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE 1/ CAPACITY	Measured June 1, 1976 1976	1975	1974	Normal*
		COLUMBIA				
Spokane	Coeur d'Alene Lake	225.1	269.1	326.8	397.7	299.8
Columbia	Franklin D. Roosevelt Lake	5232.0	3740.7	600.2	979.0	3239.1
Columbia	Banks Lake	761.8	648.0	507.5	204.9	446.7
Okanogan	Conconully Reservoir	13.0	13.0	12.1	11.5	10.4
Okanogan	Salmon Lake	10.5	10.5	10.5	10.5	9.3
Chelan	Lake Chelan	676.1	487.8	339.5	390.0	481.4
		YAKIMA				
Yakima	Keechelus Lake	157.8	143.7	129.4	114.1	147.5
Kachess	Kachess Lake	239.0	226.5	191.9	196.8	226.2
Cle Elum	Lake Cle Elum	436.9	387.1	336.4	301.5	387.3
Bumping	Bumping Lake	33.7	25.8	16.9	16.6	27.7
Tieton	Rimrock Lake	198.0	177.4	142.7	148.4	172.0
		PUGET SOUND				
Skagit	Ross Reservoir	1404.1	1034.1	736.8	808.8	708.6
Skagit	Diablo Reservoir	90.6	86.6	88.8	86.8	84.8
Skagit	Gorge Reservoir	9.8	9.2	9.0	8.9	-

1/ Based on Active Storage

* 15-year Average 1958-72

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL Sept-Oct 1975 2/ Observed	FALL Departure	WINTER Nov. 1975--Mar. 1976 Observed	WINTER Departure	SPRING April-May 1976 2/ Observed	SPRING Departure
Columbia in Canada	3.51	+ 0.96	13.54	+ 0.79	3.76	+ 0.53
Pend Oreille - Spokane	4.27	- 0.21	18.45	- 0.30	4.19	- 0.22
Northeastern Washington	2.29	- 0.49	9.45	- 1.66	3.14	- 0.12
Southeastern Washington	2.94	- 0.29	11.77	- 1.70	4.10	+ 0.44
Central Washington	5.47	+ 0.72	33.67	+ 6.14	2.47	- 0.84
North Central Washington	1.22	- 0.40	5.87	- 0.85	1.40	- 0.49
Northwest Slope Cascades	15.42	+ 2.73	65.16	+12.93	8.10	- 2.02
Southwest Slope Cascades	8.34	- 0.34	46.34	+ 4.70	6.61	- 0.69

Northeastern Washington - Lower Spokane, Colville, Sanpoil and Lower Kettle Drainages.

Southeastern Washington - Touchet, Tucannon and Palouse Drainages.

Central Washington - Yakima, Wenatchee and Chelan Drainages.

North Central Washington - Methow and Okanogan Drainages.

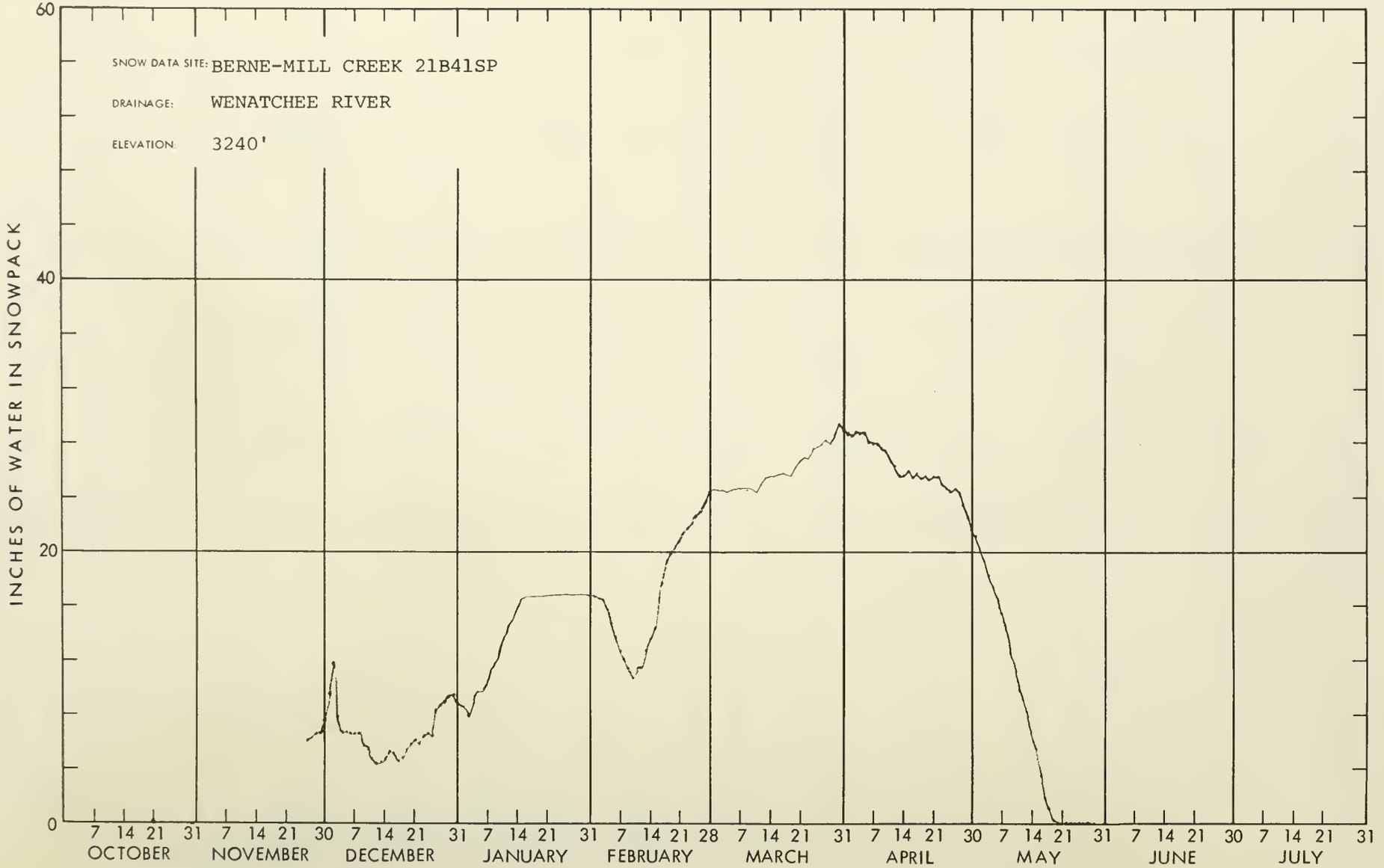
Northwest Slope Cascades - Puget Sound Drainages.

Southwest Slope Cascades - Lower Columbia Drainages.

1/ - Preliminary analysis by National Weather Service from data furnished by Meteorlogical Services of Canada and the National Weather Service.

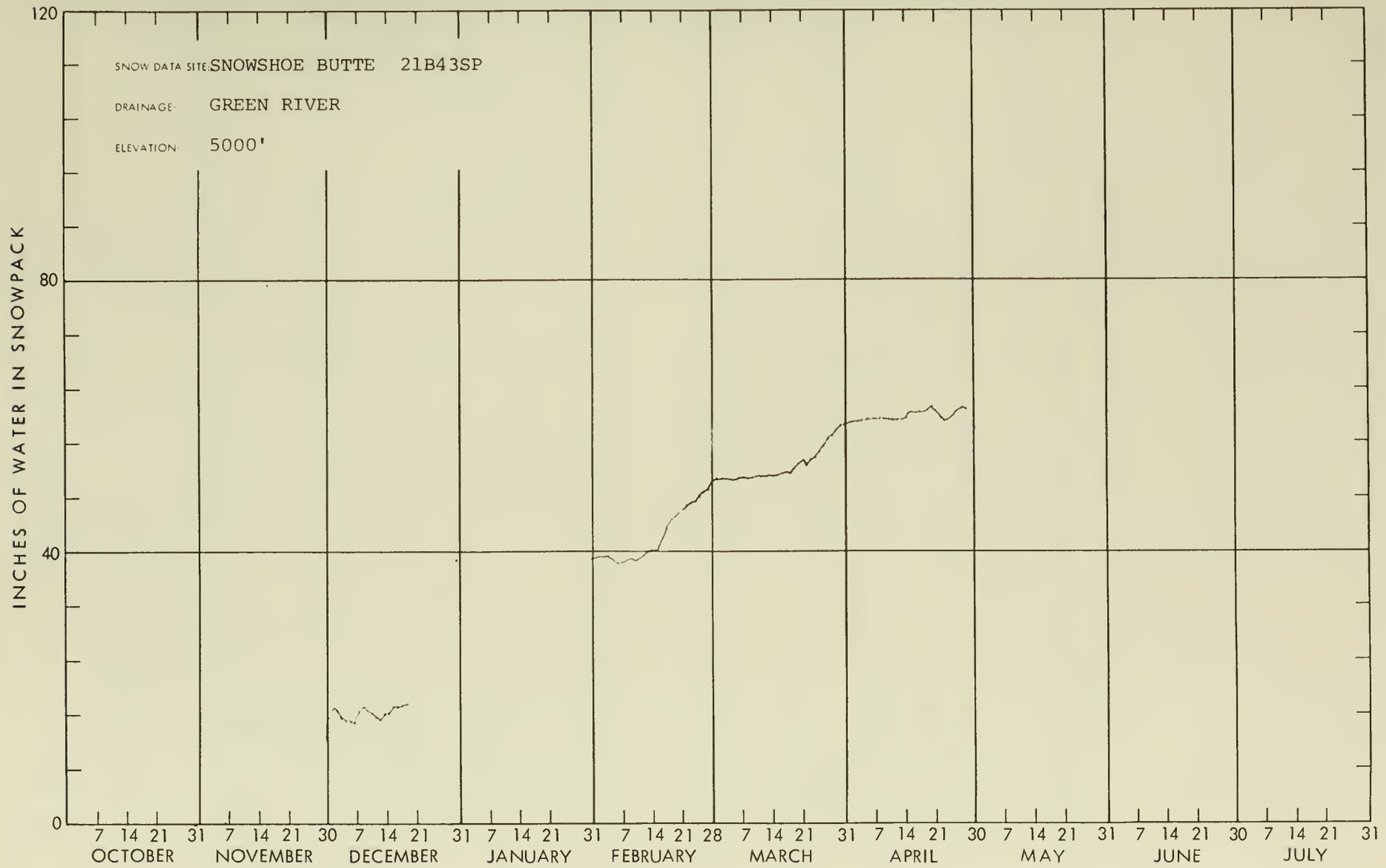
2/ - Departure from 15-year (1958-72) drainage division average.

WSFB-X13C


SNOW DATA SITE: BERNE-MILL CREEK 21B41SP
DRAINAGE: WENATCHEE RIVER
ELEVATION: 3240'
INCHES OF WATER IN SNOWPACK
60
40
20
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

5

WSF8-X13D


SNOW DATA SITE: SNOWSHOE BUTTE 21B43SP
DRAINAGE: GREEN RIVER
ELEVATION: 5000'
INCHES OF WATER IN SNOWPACK
120
80
40
0
7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 31 7 14 21 28 7 14 21 31 7 14 21 30 7 14 21 31 7 14 21 30 7 14 21 31
OCTOBER
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JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY

6

WSFB-X4-L

CORRECTIONS AND ADDITIONS - 1976 SNOW REPORTS - APPENDIX 1

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE						Water Content (inches)	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average †#
February 1							
YAKIMA RIVER							
Corral Pass	21B13	6000	1/30	80	30.1	-	-
Olallie Meadow	21B02	3625	1/30	79	32.0	-	32.7
GREEN RIVER							
Cougar Mountain SP	21B42SP	3200	1/30	20	7.7	-	-
March 1							
YAKIMA RIVER							
Olallie Meadow	21B02	3625	3/2	157	68.3	52.6	40.6
ASOTIN CREEK							
Spruce Springs	17C04	5700	3/4	76	25.1	26.6	23.6
COWLITZ RIVER							
Packwood Lake	21C31	2870	2/23	41	13.1	14.9	12.7
BAKER RIVER							
Jasper Pass	21A06A	5400	3/1	278	106.0	86.0	82.8
May 1							
NISQUALLY RIVER							
Longmire	21C03	2760	4/26	21	9.3	7.6	-
GREEN RIVER							
Snowshoe Butte SP	21B43SP	5000	4/28	161	68.9	76.5	-
BAKER RIVER							
Baker Pass	21A27a	4900	4/29	249	119.0	99.9	-

Average based on 1958-72 average

† Snow water equivalent estimated from aerial stadia observation

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO JUNE 1, 1976 - APPENDIX 2

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
UPPER COLUMBIA DRAINAGE							
PEND OREILLE RIVER							
Baree Creek	15B11	5500	5/14	84	45.7	55.6	42.6
Baree Midway	15B16	4600	5/14	52	26.2	38.4	24.5
Baree Trail	15B15	3800	5/14	0	0.0	0.0	0.0
Lookout	15B02	5250	5/14	54	24.8	41.0	30.9
			5/26	31	14.6	28.8	--
Nelson	19-Can	3050	5/13	1.6	0.6	5.2	0.8*
			5/28	0	0.0	0.0	0.0*
Schweitzer Bowl	16A06	4500	5/27	0	0.0	--	--
Schweitzer Ridge	16A05	6100	5/27	50	24.0	--	--
KETTLE RIVER							
Big White Mtn.	154-Can	5500	5/15	52	18.5	23.5	17.8*
Carmi	126-Can	4100	5/15	0	0.0	0.0	0.0*
Farron # 1	17-Can	4000	5/15	8.7	3.3	5.4	-- *
Farron # 2	243-Can	4000	5/14	9.0	3.1	6.8	-- *
Monashee Pass	48A-Can	4500	5/14	20	9.0	8.9	9.4*
			6/2	6.3	2.6	1.2	2.0*
Trapping Creek Lower	166-Can	3050	5/15	0	0.0	--	0.0*
Trapping Creek Upper	165-Can	4450	5/15	0	0.0	0.0	0.5*
SPOKANE RIVER							
Granite Peak	15B13A	6000	6/1	Late Report		42.1	--
Lookout	15B02	5250	5/14	54	24.8	41.0	30.9
			5/26	31	14.6	28.8	--
Lost Lake	15B14A	6000	6/1	Late Report		58.2	--
Medicine Ridge	15B04A	6150	6/1	Late Report		43.4	--
OKANOGAN RIVER							
Blackwall Mountain	100-Can	6250	6/1	76	37.6	26.5	29.1*
Brenda Mine	193-Can	4800	5/15	0	0.0	3.1	2.9*
Brookmere	27-Can	3200	5/15	0	0.0	5.0	2.9*
Enderby	130-Can	6250	5/14	103	44.1	44.3	45.2*
			5/31	103	45.9	42.1	40.0*
Esperon Creek Lower	164-Can	4400	6/1	0	0.0	0.0	0.0*
Esperon Creek Middle	163-Can	4700	6/1	0	0.0	0.0	0.0*
Esperon Creek Upper	162-Can	5400	6/1	0	0.0	14.0	5.9*
Hamilton Hill	107-Can	4900	5/14	21	8.7	10.2	6.5*
			6/3	0	0.0	--	2.0*
Isintok Lake	152-Can	5510	5/14	6	2.8	7.8	4.8*

\# Average based on 1958-72 average

* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO JUNE 1, 1976 - APPENDIX 3

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	Number	Elevation	THIS YEAR Date of Survey	Snow Depth (Inches)	Water Content (Inches)	PAST RECORD Water Content (inches) Last Year	Average #
OKANOGAN RIVER (Cont.)							
Lost Horse Mountain	105-Can	6300	5/17	15	5.8	9.6	10.3*
			6/1	11	4.3	6.6	4.2*
McCulloch	4-Can	4200	5/13	0	0.0	0.2	0.6*
Missezula Mountain	106-Can	5100	5/14	0	0.0	6.4	1.9*
Mission Creek	5A-Can	6000	5/13	47	21.7	23.3	19.1*
			5/31	43	16.8	20.0	11.4*
Monashee Pass	48A-Can	4500	5/14	20	9.0	8.9	9.4*
			6/2	6.3	2.6	1.2	2.0*
Mount Kobau	156-Can	5950	5/14	20	6.4	14.1	10.0*
			5/31	11	1.9	8.3	2.0*
New Copper Mountain	46A-Can	4300	5/15	0	0.0	-	-
New Penticton Res. #2	183-Can	5225	5/15	9	3.4	8.4	7.3*
			5/31	0	0.0	1.4	-
Silver Star Mountain	99-Can	6050	5/15	58	29.4	32.6	26.0*
			5/31	47	22.6	25.6	15.5*
Summerland Reservoir	3A-Can	4200	5/14	1.2	0.5	8.1	2.3*
Trout Creek	3-Can	4700	5/12	2.0	0.4	5.4	1.7*
Vaseux Creek	233-Can	4600	5/15	0	0.0	0.0	0.5*
White Rocks Mountain	70-Can	6000	5/15	30	14.1	26.3	20.8*
			5/27	13	6.3	19.1	-
ENTIAT RIVER							
Blue Creek G. S.	20B28a	5425	5/28	65	34.2	41.6	-
Entiat Meadows +	20A33a	4540	5/28	48	25.2	36.7	-
Entiat River Trail +	20A34a	3325	5/28	0	0.0	0.0	-
Four Mile Ridge +	20B27a	6800	5/28	60	31.6	35.1	-
Fox Camp +	20A36a	6510	5/28	130	68.4	76.7	-
Pope Ridge	20B20	3540	5/28	0	0.0	0.0	-
Pugh Ridge +	20A32a	6725	5/28	57	30.0	32.9	-
Shady Pass	20A37	6200	5/28	38	20.0	19.6	-
Snow Brushy +	20A35a	3910	5/28	0	0.0	24.3	-
Tommy Creek +	20B21a	4900	5/28	0	0.0	6.5	-
CHELAN LAKE BASIN							
Cloudy Pass +	20A22a	6500	5/14	119	57.1	-	-
Little Meadows +	20A24a	5275	5/14	100	48.0	52.8	-
Lyman Lake	20A23A	5900	5/14	150	72.2	72.0	-
Park Creek Ridge	20A12A	4600	5/14	97	46.6	46.6	-
WENATCHEE RIVER							
Stevens Pass	21B01	4070	5/14	109	54.3	56.7	48.3
			5/28	88	45.2	59.4	36.5
Stevens Pass Sand Shed	21B45	3700	5/14	60	29.4	34.1	-
			5/28	35	17.6	30.2	-

\# Average based on 1958-72 average
* Average for years of record

USDA SCS PORTLAND OREGON 1973

SNOW DATA TO JUNE 1, 1976 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Average #
YAKIMA RIVER							
Bumping Lake	21C08	3450	5/14	4.4	1.8	5.0	1.8
			6/1	0	0.0	0.0	-
Bumping Lake New	21C36	3400	5/14	14	5.6	11.1	-
			6/1	0	0.0	0.0	-
Lake Cle Elum	21B14M	2200	5/15	0	0.0	-	-
			6/1	0	0.0	-	-
Stampede Pass SP	21B10SP	3860	5/14	-	30.6	47.1	33.6
			5/27	-	26.4	41.2	18.8
Tunnel Avenue	21B08	2450	5/14	20	8.9	19.2	7.9
			6/1	0	0.0	6.3	-
White Pass (E. Side)	21C28	4500	5/28	32	14.5	21.6	13.6
LOWER COLUMBIA DRAINAGE							
COWLITZ RIVER							
White Pass (E. Side)	21C28	4500	5/28	32	14.4	21.6	13.6
PUGET SOUND DRAINAGE							
GREEN RIVER							
Stampede Pass SP	21B10SP	3860	5/14	-	30.6	47.1	33.6
			5/27	-	26.4	41.2	18.8
SKYKOMISH RIVER							
Stevens Pass	21B01	4070	5/14	109	54.3	56.7	48.3
			5/28	88	45.2	59.4	36.5
Stevens Pass S. Shed	21B45	3700	5/14	60	29.4	34.1	-
			5/28	35	17.6	30.2	-
BAKER RIVER							
Baker Pass +	21A27a	4900	5/14	216	108.0	102.0	-
			6/1	Late Report		102.0	-
Dock Butte +	21A11A	3800	5/14	166	83.0	73.0	72.7
			6/1	Late Report		74.0	58.0
Easy Pass +	21A07A	5200	5/14	200	100.0	94.0	90.2
			6/1	Late Report		93.0	73.6
Jasper Pass +	21A06A	5400	5/14	226	113.0	103.0	114.7
			6/1	Late Report		115.0	84.2
Marten Lake +	21A09A	3600	5/14	196	98.0	84.0	81.3
			6/1	Late Report		84.0	66.2
Mount Blum +	21A18a	5800	5/14	172	86.0	86.0	-
			6/1	Late Report		93.0	-
Panorama New	21A26	4300	5/30	128	74.2	-	-
Rocky Creek +	21A12A	2100	5/14	62	31.0	27.0	12.1
			6/1	Late Report		5.0	-

\# Average based on 1958-72 average

\+ Snow water equivalent estimated from aerial stadia observation.

USDA SCS PORTLAND, OREGON 1971

SNOW DATA TO JUNE 1, 1976 - APPENDIX 5

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches) Last Year	Average #
BAKER RIVER (Cont.)							
Schreibers Meadow +	21A10A	3400	5/14	144	72.0	55.0	61.7
			6/1	Late Report		62.0	48.6
S. F. Thunder Creek +	21A14A	2200	5/14	0	0.0	-	0.0
Watson Lakes +	21A08A	4500	5/14	146	73.0	60.0	73.5
			6/1	Late Report		79.0	61.4
NOOKSACK RIVER							
Panorama New	21A26	4300	5/30	128	74.2	-	-

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation.

USDA SCS PORTLAND OREGON 1973

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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"The Conservation of Water begins with the Snow Survey"

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